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PCP0749 : MSKIRRKVTVENTKTISDSTSRRPVFERLGPSTGTAETQCRNWLKTGNCLYGNTCR : 58
KIAA0803 : ----- : -

PCP0749 : FVHGSPRGKGYSSNYRRSPERPTGDLRERMKNKRQDVDETEPQKRNTTESSSPVRKES : 116
KIAA0803 : ----- : -

PCP0749 : SRGRHREKEDIKITKERTPESEEEENVWETNRDDSDNGDINYDYVHELSELMKRQKIQ : 174
KIAA0803 : ----- : -

PCP0749 : RELMKLEQENMEKREEIIKKEVSPVVRSKLSPSPSLRKSSKSPKRKSSPKSSSASK : 232
KIAA0803 : ----- : -

PCP0749 : KDRKTSAVSSPLDQQRNSKTNQSKKKGPRTSPPPPPIPEDIALGKKYKEKYKVKDRI : 290
KIAA0803 : ----- : -

PCP0749 : EEKTRDGKDRGRDFERQREKRDKPRSTSPAGQHHSPISRRHHSSSSQSGSSIQRHSPS : 348
KIAA0803 : ----- : -

PCP0749 : PRRKRTSPSPSYQRTLTPLRRSASPYPSPSHSLSSPQRKQSPPRHRSFMREKGRHDHERT : 406
KIAA0803 : -----MREKGRHDHERT : 12
MREKGRHDHERT

PCP0749 : SQSHDRRHERREDTRGKRDREKDSREEREYEQDQSSSRDHRDDREPRDGRDRRDARDT : 464
KIAA0803 : SQSHDRRHERREDTRGKRDREKDSREEREYEQDQSSSRDHRDDREPRDGRDRRDARDT : 70
SQSHDRRHERREDTRGKRDREKDSREEREYEQDQSSSRDHRDDREPRDGRDRRDARDT

PCP0749 : RDRRELDRSDMRDSREMRDYSRDTKESRDPDRSRSTRDAHDYRDREGDRDTHRKEDTY : 522
KIAA0803 : RDRPELDRSDMRDSREMRDYSRDTKESRDPDRSRSTRDAHDYRDREGDRDTHRKEDTY : 128
RDRRELDRSDMRDSREMRDYSRDTKESRDPDRSRSTRDAHDYRDREGDRDTHRKEDTY

PCP0749 : PEESRSYGRNHLREESSRTEIRNESRNESEIRNDRMGSRGRVPELPEKGSRGSRG : 580
KIAA0803 : PEESRSYGRNHLREESSRTEIRNESRNESEIRNDRMGSRGRVPELPEKGSRGSRG : 186
PEESRSYGRNHLREESSRTEIRNESRNESEIRNDRMGSRGRVPELPEKGSRGSRG

PCP0749 : SQIDSHSSNSNYHDSWETRSSYPEDRYPERDNRDQARDSSFERRHGERDRDRNRERD : 638
KIAA0803 : SQIDSHSSNSNYHDSWETRSSYPEDRYPERDNRDQARDSSFERRHGERDRDRNRERD : 244
SQIDSHSSNSNYHDSWETRSSYPEDRYPERDNRDQARDSSFERRHGERDRDRNRERD

PCP0749 : QRPSSPIRHQGRNDELERDERREERRVDRVDDRRDERARERDRERERERERERE : 696
KIAA0803 : QRPSSPIRHQGRNDELERDERREERRVDRVDDRRDERARERDRERERERERERE : 302
QRPSSPIRHQGRNDELERDERREERRVDRVDDRRDERARERDRERERERERERE

PCP0749 : RDREREKERELERERAREREREREKERDRERDRDRDHDREEREREREKREKERERERE : 754
KIAA0803 : RDREREKERELERERAREREREREKERDRERDRDRDHDREEREREREKREKERERERE : 360
RDREREKERELERERAREREREREKERDRERDRDRDHDREEREREREKREKERERERE

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FIG. 1A

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**FIG. 1B**

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PCP0389 : MDLHKQWENTETNWHKEKMELLDQFDNERKEWESQWKIMQKKIEELCREVKLWRKININ : 59
KIAA0408 : ----- : -

PCP0389 : 0      *      80      *      100      *      1      118
KIAA0408 : ----- : 1
M

PCP0389 : 20      *      140      *      160      *      177
KIAA0408 : CKEQKATKKSKVGFLDPLATDNQKECEAWPDLRTSEEDSKSCSGALSTALEELAKVSEE : 60
CKEQKATKKSKVGFLDPLATDNQKECEAWPDLRTSEEDSKSCSGALSTALEELAKVSEE

PCP0389 : 180      *      200      *      220      *      236
KIAA0408 : LCSFQEEIRKRSNHRMRKSDSFLQEMPVNTNIPHGDPMINNDQCILPISLEKEKQKNRK : 119
LCSFQEEIRKRSNHRMRKSDSFLQEMPVNTNIPHGDPMINNDQCILPISLEKEKQKNRK

PCP0389 : 240      *      260      *      280      *      295
KIAA0408 : NLSCTNVLQSNSTKKCGIDTIDLKRNETPPVPPPRSTSRNFPSSDSEQAYERWKERLDH : 178
NLSCTNVLQSNSTKKCGIDTIDLKRNETPPVPPPRSTSRNFPSSDSEQAYERWKERLDH

PCP0389 : 300      *      320      *      340      *      354
KIAA0408 : NSWVPHEGRSKRNYNPHFPLRQEQMSMLYPNEGKTSKDGIIFFSSLVPEVKIDSKPPSNE : 237
NSWVPHEGRSKRNYNPHFPLRQEQMSMLYPNEGKTSKDGIIFFSSLVPEVKIDSKPPSNE

PCP0389 : 360      *      380      *      400      *      413
KIAA0408 : DVGLSMWSCDIGIGAKRSPSTSWFQKTCSTPSNPKYEMVIPDHPAKSHPDHLVSNDCSS : 296
DVGLSMWSCDIGIGAKRSPSTSWFQKTCSTPSNPKYEMVIPDHPAKSHPDHLVSNDCSS

PCP0389 : 420      *      440      *      460      *      472
KIAA0408 : SVAESSPLRNFSCGFERTTRNEKLAAKTDEFNRTVFRTDRNCQAIQQNHSCSKSSEDL : 355
SVAESSPLRNFSCGFERTTRNEKLAAKTDEFNRTVFRTDRNCQAIQQNHSCSKSSEDL

PCP0389 : 480      *      500      *      520      *      531
KIAA0408 : KPCDTSSTHTGSIQSNDVSGIWKTNAMHPVPMENVDPNPTKKSTTGLVRQMGGHLSPR : 414
KPCDTSSTHTGSIQSNDVSGIWKTNAMHPVPMENVDPNPTKKSTTGLVRQMGGHLSPR

PCP0389 : 540      *      560      *      580      *      590
KIAA0408 : SYRNMLHEHDWRPSNLSGRPRPSADPRSNGVVEKLLKTYETATESALQNSKCFQDNWTK : 473
SYRNMLHEHDWRPSNLSGRPRPSADPRSNGVVEKLLKTYETATESALQNSKCFQDNWTK

PCP0389 : 600      *      620      *      640      649
KIAA0408 : CNSDVSGGATLSQHLEMLQMEQQFQOKTAVWGGQEVKQGIDPKKITEESMSVNASHGKG : 532
CNSDVSGGATLSQHLEMLQMEQQFQOKTAVWGGQEVKQGIDPKKITEESMSVNASHGKG

PCP0389 : *      660      *      680      *      700      694
KIAA0408 : FSRPARPANRRLLPSRWASRSPSAPPALRRTHNYTISLRSEALMV----- : 577
FSRPARPANRRLLPSRWASRSPSAPPALRRTHNYTISLRSEALMV

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FIG. 2

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      *      20      *      40      *
PCP0814 : MFRAPCHRLRARGTRKARAGAWRGCTFPCLGKGMERPAAREPHGPDALRRFQGLLLDR : 58
NM_030817 : -----MERPAAREPHGPDALRRFQGLLLDR : 25
                        MERPAAREPHGPDALRRFQGLLLDR

      60      *      80      *      100      *
PCP0814 : RGRLLHRQVLRRLREVARRLERLRRRSLVANVAGSSLSATGALAAIVGLSLSPVTLGTSI : 116
NM_030817 : RGRLLHRQVLRRLREVARRLERLRRRSLVANVAGSSLSATGALAAIVGLSLSPVTLGTSI : 83
                        RGRLLHRQVLRRLREVARRLERLRRRSLVANVAGSSLSATGALAAIVGLSLSPVTLGTSI

      120      *      140      *      160      *
PCP0814 : LVSAVGLGVATAGGAVTITSDLSLIFCNSRELRRVQEIATCQDQMREILSCLEFFCR : 174
NM_030817 : LVSAVGLGVATAGGAVTITSDLSLIFCNSRELRRVQEIATCQDQMREILSCLEFFCR : 141
                        LVSAVGLGVATAGGAVTITSDLSLIFCNSRELRRVQEIATCQDQMREILSCLEFFCR

      180      *      200      *      220      *
PCP0814 : WQCGGDRQLLQCGRNASIALYNSVYFIVFFGSRGFLIPRAEGDTKVSQAVLKAKIQK : 232
NM_030817 : WQCGGDRQLLQCGRNASIALYNSVYFIVFFGSRGFLIPRAEGDTKVSQAVLKAKIQK : 199
                        WQCGGDRQLLQCGRNASIALYNSVYFIVFFGSRGFLIPRAEGDTKVSQAVLKAKIQK

      240      *      260      *
PCP0814 : LAESLESCTGALDELSEQLESRVQLCTKSSRGHDLKISADQRAGLFF : 279
NM_030817 : LAESLESCTGALDELSEQLESRVQLCTKSSRGHDLKISADQRAGLFF : 246
                        LAESLESCTGALDELSEQLESRVQLCTKSSRGHDLKISADQRAGLFF

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FIG. 3

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PCP0623 : * 20 * 40 *
NM_015384 : MNGDMPHVPIITLAGIASLTDLLNQLPLPSPLPATTTKSLLFNARIAEEVNCLLACR : 57
NM_133433 : ----- : -

PCP0623 : 60 * 80 * 100 *
NM_015384 : DDNLVSQLVHSLNQVSTDHIELKDNLGSDDPEGDIPVLLQAVLARSFNVFREKSMQN : 114
NM_133433 : ----- : -

PCP0623 : 120 * 140 * 160 *
NM_015384 : RYVQSGMMMSQYKLSQNSMHSSPASSNYQQTISHSPSSRFVPPQTSSGNRFMPQQN : 171
NM_133433 : ----- : -

PCP0623 : 180 * 200 * 220
NM_015384 : SPVPSPYAPQSPAGYMPYSHPSYTHPQMQQASVSSPIVAGGLRNIHDNKVSGPLS : 228
NM_133433 : ----- : -

PCP0623 : * 240 * 260 * 280
NM_015384 : GNSANHHADNPRHGSSDYLMVHRLSSDDGDSSTMRNAASFPLRSPQPVCSAGSE : 285
NM_133433 : ----- : -

PCP0623 : * 300 * 320 * 340
NM_015384 : GTPKGSRPPLILQSQSLPCSSPRDVPDILLDSPERKQKKQKKMKLGKDEKEQSEKA : 342
NM_133433 : ----- : -

PCP0623 : * 360 * 380 * 40
NM_015384 : AMYDISSPSKSDSTKLTLRLSRVRSSDMDQQEDMISGVENSNVSENDIPFNVQYPGQ : 399
NM_133433 : ----- : -

PCP0623 : 0 * 420 * 440 *
NM_015384 : TSKTPITPDINRPLNAAQCLSQEQTAFLPANQVPVLQQNTSVAAKQPQTSVVQNG : 456
NM_133433 : ----- : -

PCP0623 : 460 * 480 * 500 *
NM_015384 : QQISQQGPIYDEVELDALAEIERIERESAIERERFSKEVQDKDKPLKKRKQDSYPQE : 513
NM_133433 : ----- : -

PCP0623 : 520 * 540 * 560 *
NM_015384 : AGGATGGNRPASQETGSTGNGSRPALMVSIDLHQAGRVDSQASITQSDSIKKPEEI : 570
NM_133433 : -----MVSIDLHQAGRVDSQASITQSDSIKKPEEI : 31
NM_133433 : -----MVSIDLHQAGRVDSQASITQSDSIKKPEEI : 31

PCP0623 : 580 * 600 * 620
NM_015384 : KQCNDAPVSVLQEDIVGSLKSTPENHPETPKKKSDELSKSEMKSRLAESKPNE : 627
NM_133433 : KQCNDAPVSVLQEDIVGSLKSTPENHPETPKKKSDELSKSEMKSRLAESKPNE : 88
NM_133433 : KQCNDAPVSVLQEDIVGSLKSTPENHPETPKKKSDELSKSEMKSRLAESKPNE : 88

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FIG. 4A

		*	640	*	660	*	680	
PCP0623	:	NRLVETKSSSENKLETKVETQTEELKQNESRTTECKQNESTIVEPKQENRLSDTKPN					:	684
NM_015384	:	NRLVETKSSSENKLETKVETQTEELKQNESRTTECKQNESTIVEPKQENRLSDTKPN					:	145
NM_133433	:	NRLVETKSSSENKLETKVETQTEELKQNESRTTECKQNESTIVEPKQENRLSDTKPN					:	145

		*	700	*	720	*	740	
PCP0623	:	DNKQNNGRSETTKSRPETPKQKGESRPETPKQKSDGHPETPKQKGDGRPETPKQKGE					:	741
NM_015384	:	DNKQNNGRSETTKSRPETPKQKGESRPETPKQKSDGHPETPKQKGDGRPETPKQKGE					:	202
NM_133433	:	DNKQNNGRSETTKSRPETPKQKGESRPETPKQKSDGHPETPKQKGDGRPETPKQKGE					:	202

		*	760	*	780	*	8	
PCP0623	:	SRPETPKQKNEGRPETPKHRHDNRDSDGKPSSTEKKPEVSKHKQDTKSDSPRLKSEPA					:	798
NM_015384	:	SRPETPKQKNEGRPETPKHRHDNRDSDGKPSSTEKKPEVSKHKQDTKSDSPRLKSEPA					:	259
NM_133433	:	SRPETPKQKNEGRPETPKHRHDNRDSDGKPSSTEKKPEVSKHKQDTKSDSPRLKSEPA					:	259

		00	*	820	*	840	*	
PCP0623	:	EALKQRPDGRSVSESLRRDHDKQKSDDRGSESRHRGDQSRVRRPETLRSSSRNEHG					:	855
NM_015384	:	EALKQRPDGRSVSESLRRDHDKQKSDDRGSESRHRGDQSRVRRPETLRSSSRNEHG					:	316
NM_133433	:	EALKQRPDGRSVSESLRRDHDKQKSDDRGSESRHRGDQSRVRRPETLRSSSRNEHG					:	316

		860	*	880	*	900	*	
PCP0623	:	IKSDSSKTDKLERKHRHESGDSRERPSSGEQKSRPDSPRVKQGDSDNKSRSDDLGFKS					:	912
NM_015384	:	IKSDSSKTDKLERKHRHESGDSRERPSSGEQKSRPDSPRVKQGDSDNKSRSDDLGFKS					:	373
NM_133433	:	IKSDSSKTDKLERKHRHESGDSRERPSSGEQKSRPDSPRVKQGDSDNKSRSDDLGFKS					:	373

		920	*	940	*	960		
PCP0623	:	PTSDDKRTTEGNKSKVDTNKAHPDNKAEFFPSYLLGGRSGALKNFVPIKIKRDKDGNV					:	969
NM_015384	:	PTSDDKRTTEGNKSKVDTNKAHPDNKAEFFPSYLLGGRSGALKNFVPIKIKRDKDGNV					:	430
NM_133433	:	PTSDDKRTTEGNKSKVDTNKAHPDNKAEFFPSYLLGGRSGALKNFVPIKIKRDKDGNV					:	430

		*	980	*	1000	*	1020	
PCP0623	:	TQETKKNEMKGEPPKDKVEKIGLVEDLNKGAKPVVVLQKLSLDDVQKLIKDRDCKSRS					:	1026
NM_015384	:	TQETKKNEMKGEPPKDKVEKIGLVEDLNKGAKPVVVLQKLSLDDVQKLIKDRDCKSRS					:	487
NM_133433	:	TQETKKNEMKGEPPKDKVEKIGLVEDLNKGAKPVVVLQKLSLDDVQKLIKDRDCKSRS					:	487

		*	1040	*	1060	*	1080	
PCP0623	:	SLKPIKKNKPSKSNKGSIDQSVLKELPPELLAEIESTMPLCERVMMNKRKRSTVNEKP					:	1083
NM_015384	:	SLKPIKKNKPSKSNKGSIDQSVLKELPPELLAEIESTMPLCERVMMNKRKRSTVNEKP					:	544
NM_133433	:	SLKPIKKNKPSKSNKGSIDQSVLKELPPELLAEIESTMPLCERVMMNKRKRSTVNEKP					:	544

		*	1100	*	1120	*	1140	
PCP0623	:	KYAEISSDEDNDSDEAFESSRKRHKDDDKAWEYEERDRSSGDHRRSGHSHGGRRS					:	1140
NM_015384	:	KYAEISSDEDNDSDEAFESSRKRHKDDDKAWEYEERDRSSGDHRRSGHSHGGRRS					:	601
NM_133433	:	KYAEISSDEDNDSDEAFESSRKRHKDDDKAWEYEERDRSSGDHRRSGHSHGGRRS					:	601

		*	1160	*	1180	*	1	
PCP0623	:	SGGGRYRNRSPSDSDMEDYSPPPSLSEVARKMKKKKEKQKKRKAYEPKLTPEEMMDSS					:	1197
NM_015384	:	SGGGRYRNRSPSDSDMEDYSPPPSLSEVARKMKKKKEKQKKRKAYEPKLTPEEMMDSS					:	658
NM_133433	:	SGGGRYRNRSPSDSDMEDYSPPPSLSEVARKMKKKKEKQKKRKAYEPKLTPEEMMDSS					:	658

		200	*	1220	*	1240	*	
PCP0623	:	TFKRFTASIEIILDNLEDMDFTAFGDDDEIPQELLGKHQLNELGSESAKIKAMGIM					:	1254
NM_015384	:	TFKRFTASIEIILDNLEDMDFTAFGDDDEIPQELLGKHQLNELGSESAKIKAMGIM					:	715
NM_133433	:	TFKRFTASIEIILDNLEDMDFTAFGDDDEIPQELLGKHQLNELGSESAKIKAMGIM					:	715

FIG. 4B

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      1260      *      1280      *      1300      *
PCP0623 : DKLSTDKTVKVLNILEKNIQDGSKLSTLLNHNNDTEEEERLWRDLIMERVTKSADAC : 1311
NM_015384 : DKLSTDKTVKVLNILEKNIQDGSKLSTLLNHNNDTEEEERLWRDLIMERVTKSADAC : 772
NM_133433 : DKLSTDKTVKVLNILEKNIQDGSKLSTLLNHNNDTEEEERLWRDLIMERVTKSADAC : 772

      1320      *      1340      *      1360
PCP0623 : LTTINIMTSPNMPKAVYIEDVIERVIQYTKFHLQNTLYPQYDPVYRLDPHGGLSS : 1368
NM_015384 : LTTINIMTSPNMPKAVYIEDVIERVIQYTKFHLQNTLYPQYDPVYRLDPHGGLSS : 829
NM_133433 : LTTINIMTSPNMPKAVYIEDVIERVIQYTKFHLQNTLYPQYDPVYRLDPHGGLSS : 829

      *      1380      *      1400      *      1420
PCP0623 : KAKRAKCSHKQRVIVMLYNKVCDIVSSISELLEIQLLTDTTILQVSSMGITPFFVE : 1425
NM_015384 : KAKRAKCSHKQRVIVMLYNKVCDIVSSISELLEIQLLTDTTILQVSSMGITPFFVE : 886
NM_133433 : KAKRAKCSHKQRVIVMLYNKVCDIVSSISELLEIQLLTDTTILQVSSMGITPFFVE : 886

      *      1440      *      1460      *      1480
PCP0623 : NVSELQLCAIKLVTAVFSRYEKHRQLILEEIFTSLARLPTSKRSLRNFRNLSSDMDG : 1482
NM_015384 : NVSELQLCAIKLVTAVFSRYEKHRQLILEEIFTSLARLPTSKRSLRNFRNLSSDMDG : 943
NM_133433 : NVSELQLCAIKLVTAVFSRYEKHRQLILEEIFTSLARLPTSKRSLRNFRNLSSDMDG : 943

      *      1500      *      1520      *      154
PCP0623 : EPMYIQMVTALVLQLIQCVVHLPSEKDSNAEEDSNKKIDQDVVITNSYETAMRTAQ : 1539
NM_015384 : EPMYIQMVTALVLQLIQCVVHLPSEKDSNAEEDSNKKIDQDVVITNSYETAMRTAQ : 1000
NM_133433 : EPMYIQMVTALVLQLIQCVVHLPSEKDSNAEEDSNKKIDQDVVITNSYETAMRTAQ : 1000

      0      *      1560      *      1580      *
PCP0623 : NFLSIFLKKCGSKQGEEDYRPLFENFVQDLLSTVNKPEWPAAELLSLLGRLLVHQF : 1596
NM_015384 : NFLSIFLKKCGSKQGEEDYRPLFENFVQDLLSTVNKPEWPAAELLSLLGRLLVHQF : 1057
NM_133433 : NFLSIFLKKCGSKQGEEDYRPLFENFVQDLLSTVNKPEWPAAELLSLLGRLLVHQF : 1057

      1600      *      1620      *      1640      *
PCP0623 : SNKSTEMALRVASLDYLGTVAAARLRKDAVTSKMDQGSIERILKQVSGGEDEIQQLQK : 1653
NM_015384 : SNKSTEMALRVASLDYLGTVAAARLRKDAVTSKMDQGSIERILKQVSGGEDEIQQLQK : 1114
NM_133433 : SNKSTEMALRVASLDYLGTVAAARLRKDAVTSKMDQGSIERILKQVSGGEDEIQQLQK : 1114

      1660      *      1680      *      1700      *
PCP0623 : ALLDYLDENTETDPSLVFSRKFYIAQWFRDTTLETEKAMKSQKDEESSEGTHHAKET : 1710
NM_015384 : ALLDYLDENTETDPSLVFSRKFYIAQWFRDTTLETEKAMKSQKDEESSEGTHHAKET : 1171
NM_133433 : ALLDYLDENTETDPSLVFSRKFYIAQWFRDTTLETEKAMKSQKDEESSEGTHHAKET : 1171

      1720      *      1740      *      1760
PCP0623 : ETTGQIMHRAENRKKFLRSIIKTTPSQFSTLKMNSDTVYDDACLIVRYLASMRPFA : 1767
NM_015384 : ETTGQIMHRAENRKKFLRSIIKTTPSQFSTLKMNSDTVYDDACLIVRYLASMRPFA : 1228
NM_133433 : ETTGQIMHRAENRKKFLRSIIKTTPSQFSTLKMNSDTVYDDACLIVRYLASMRPFA : 1228

      *      1780      *      1800      *      1820
PCP0623 : QSFDIYLTQILRVLGENAIAVRTRKAMKCLSEVVAVDPSILARLDMQRGVHGRLMDNS : 1824
NM_015384 : QSFDIYLTQILRVLGENAIAVRTRKAMKCLSEVVAVDPSILARLDMQRGVHGRLMDNS : 1285
NM_133433 : QSFDIYLTQILRVLGENAIAVRTRKAMKCLSEVVAVDPSILARLDMQRGVHGRLMDNS : 1285

      *      1840      *      1860      *      1880
PCP0623 : TSVREA AVELLGRFVLCRPQLAEQYYDMLIERILDGTGISVRKRVIKILRDICIEQPT : 1881
NM_015384 : TSVREA AVELLGRFVLCRPQLAEQYYDMLIERILDGTGISVRKRVIKILRDICIEQPT : 1342
NM_133433 : TSVREA AVELLGRFVLCRPQLAEQYYDMLIERILDGTGISVRKRVIKILRDICIEQPT : 1342

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FIG. 4C

		*	1900	*	1920	*	19	
PCP0623	:	FPKITEMCVKMIRRVNDEEGIKLVNETFQKLWFTPTPHNDKEAMTRKILNITDVVA						: 1938
NM_015384	:	FPKITEMCVKMIRRVNDEEGIKLVNETFQKLWFTPTPHNDKEAMTRKILNITDVVA						: 1399
NM_133433	:	FPKITEMCVKMIRRVNDEEGIKLVNETFQKLWFTPTPHNDKEAMTRKILNITDVVA						: 1399
		40	*	1960	*	1980	*	
PCP0623	:	ACRDTGYDWFEQLLQNLKSEEDSSYKPVKKACTQLVDNLVEHILKYEESLADSDNK						: 1995
NM_015384	:	ACRDTGYDWFEQLLQNLKSEEDSSYKPVKKACTQLVDNLVEHILKYEESLADSDNK						: 1456
NM_133433	:	ACRDTGYDWFEQLLQNLKSEEDSSYKPVKKACTQLVDNLVEHILKYEESLADSDNK						: 1456
		2000	*	2020	*	2040	*	
PCP0623	:	GVNSGRLVACITTLFLFSKIRPQLMVKHAMTMQPYLTTCSTQNDFMVICNVAKILE						: 2052
NM_015384	:	GVNSGRLVACITTLFLFSKIRPQLMVKHAMTMQPYLTTCSTQNDFMVICNVAKILE						: 1513
NM_133433	:	GVNSGRLVACITTLFLFSKIRPQLMVKHAMTMQPYLTTCSTQNDFMVICNVAKILE						: 1513
		2060	*	2080	*	2100		
PCP0623	:	LVVPLMEHPSETFLATIEEDLMKLIICYGMTVVQHCVSCLGAVVNKVTQNFKEVWAC						: 2109
NM_015384	:	LVVPLMEHPSETFLATIEEDLMKLIICYGMTVVQHCVSCLGAVVNKVTQNFKEVWAC						: 1570
NM_133433	:	LVVPLMEHPSETFLATIEEDLMKLIICYGMTVVQHCVSCLGAVVNKVTQNFKEVWAC						: 1570
		*	2120	*	2140	*	2160	
PCP0623	:	FNRYYGAI SKLKSQH QEDPNNTSLLTNKPALLRS LFTVGALCRHFD FDLDFKGN SK						: 2166
NM_015384	:	FNRYYGAI SKLKSQH QEDPNNTSLLTNKPALLRS LFTVGALCRHFD FDLDFKGN SK						: 1627
NM_133433	:	FNRYYGAI SKLKSQH QEDPNNTSLLTNKPALLRS LFTVGALCRHFD FDLDFKGN SK						: 1627
		*	2180	*	2200	*	2220	
PCP0623	:	VNIKDKVLELLMYFTKHSDEEVQTKA IGLGF AFIQHPSLMFEQEVKNLYNNILSDK						: 2223
NM_015384	:	VNIKDKVLELLMYFTKHSDEEVQTKA IGLGF AFIQHPSLMFEQEVKNLYNNILSDK						: 1684
NM_133433	:	VNIKDKVLELLMYFTKHSDEEVQTKA IGLGF AFIQHPSLMFEQEVKNLYNNILSDK						: 1684
		*	2240	*	2260	*	2280	
PCP0623	:	NSSVNLKIQVLKNLQTYLQ EEDTRMQQADRDWKKVAKQEDLKEMGDVSSGMSSSIMQ						: 2280
NM_015384	:	NSSVNLKIQVLKNLQTYLQ EEDTRMQQADRDWKKVAKQEDLKEMGDVSSGMSSSIMQ						: 1741
NM_133433	:	NSSVNLKIQVLKNLQTYLQ EEDTRMQQADRDWKKVAKQEDLKEMGDVSSGMSSSIMQ						: 1741
		*	2300	*	2320	*	2	
PCP0623	:	LYLKQVLEAFFHTQSSVRHFALNVIALTLNQGLIHPVQCVPYLIAMGTDPEPAMRNK						: 2337
NM_015384	:	LYLKQVLEAFFHTQSSVRHFALNVIALTLNQGLIHPVQCVPYLIAMGTDPEPAMRNK						: 1798
NM_133433	:	LYLKQVLEAFFHTQSSVRHFALNVIALTLNQGLIHPVQCVPYLIAMGTDPEPAMRNK						: 1798
		340	*	2360	*	2380	*	
PCP0623	:	ADQQLVEIDKKYAGFIHMKAVAGMKMSYQVQQAINTCLKDPVRGFRQDESSALCSH						: 2394
NM_015384	:	ADQQLVEIDKKYAGFIHMKAVAGMKMSYQVQQAINTCLKDPVRGFRQDESSALCSH						: 1855
NM_133433	:	ADQQLVEIDKKYAGFIHMKAVAGMKMSYQVQQAINTCLKDPVRGFRQDESSALCSH						: 1855
		2400	*	2420	*	2440	*	
PCP0623	:	LYSMIRGNRQHRR AFLISLLNLFDDTAKTDVTMLLYIADNLACFPYQTQEEPLFIMH						: 2451
NM_015384	:	LYSMIRGNRQHRR AFLISLLNLFDDTAKTDVTMLLYIADNLACFPYQTQEEPLFIMH						: 1912
NM_133433	:	LYSMIRGNRQHRR AFLISLLNLFDDTAKTDVTMLLYIADNLACFPYQTQEEPLFIMH						: 1912
		2460	*	2480	*	2500		
PCP0623	:	HIDITLSVSGSNLLQSFKESMVKDKRKERKSSPSKENESSDSEEEVSRPRKSRKRV D						: 2508
NM_015384	:	HIDITLSVSGSNLLQSFKESMVKDKRKERKSSPSKENESSDSEEEVSRPRKSRKRV D						: 1969
NM_133433	:	HIDITLSVSGSNLLQSFKESMVKDKRKERKSSPSKENESSDSEEEVSRPRKSRKRV D						: 1969

FIG. 4D



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      *      2520      *      2540      *      2560
PCP0623 : SDSDSDEDDINSVMKCLPENSAPLIEFANVSQGILLLLMLKQHLKNLCGFSDSKIQ : 2565
NM_015384 : SDSDSDEDDINSVMKCLPENSAPLIEFANVSQGILLLLMLKQHLKNLCGFSDSKIQ : 2026
NM_133433 : SDSDSDEDDINSVMKCLPENSAPLIEFANVSQGILLLLMLKQHLKNLCGFSDSKIQ : 2026

      *      2580      *      2600      *      2620
PCP0623 : KYSPSESAKVYDKAINRKTGVHFHPKQTLDFLRSDMANSKITEEVKRSIVKQYLDFFK : 2622
NM_015384 : KYSPSESAKVYDKAINRKTGVHFHPKQTLDFLRSDMANSKITEEVKRSIVKQYLDFFK : 2083
NM_133433 : KYSPSESAKVYDKAINRKTGVHFHPKQTLDFLRSDMANSKITEEVKRSIVKQYLDFFK : 2083

      *      2640      *      2660      *      268
PCP0623 : LLMEHLDPDEEEEEGEVSASTNARNKAITSLLGGGSPKNNTAAETEDDES DGEDRGG : 2679
NM_015384 : LLMEHLDPDEEEEEGEVSASTNARNKAITSLLGGGSPKNNTAAETEDDES DGEDRGG : 2140
NM_133433 : LLMEHLDPDEEEEEGEVSASTNARNKAITSLLGGGSPKNNTAAETEDDES DGEDRGG : 2140

      0      *      2700      *      2720      *
PCP0623 : GTSG RR ----- : 2697
NM_015384 : GTSG RR ----- : 2158
NM_133433 : GTSGSLRRSKRNSDSTELAAQMNESVDVMDVIAICCPKYKDRPQIARVVQKTSSGFS : 2197

      2740      *      2760      *      2780      *
PCP0623 : ----- : -
NM_015384 : ----- : -
NM_133433 : VQWMAGSYSGSWTEAKRRDGRKLVPWVDTIKESDIIYKKIALTSANKLTNKVVQTLR : 2254

      2800
PCP0623 : ----- : -
NM_015384 : ----- : -
NM_133433 : SLYAAKDGTTSS : 2265

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FIG. 4E

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PCP0815 : MAHESERS-SRIGVPCGEF-ELG GDASEEDHPQVCAKCCAQFTDPTEFLAHQNACS : 55
XM_033473 : MSRRKQKPKQQLISDCGSPASENG GDASEEDHPQVCAKCCAQFTDPTEFLAHQNACS : 57
M 2R L C P A GDASEEDHPQVCAKCCAQFTDPTEFLAHQNACS

PCP0815 : 60 80 100
XM_033473 : TDPFVMVIIGGQENPNNSSASSEPRPEGHNNPQVMDTEHSNPPDSGSSVPTDPTWGF : 112
TDPFVMVIIGGQENPNNSSASSEPRPEGHNNPQVMDTEHSNPPDSGSSVPTDPTWGF : 114
TDPFVMVIIGGQENPNNSSASSEPRPEGHNNPQVMDTEHSNPPDSGSSVPTDPTWGF

PCP0815 : 120 140 160
XM_033473 : ERRGEESGHFLVAATGTAAGGGGLILASPKLGATPLPESTPAPPPPPPPPPPG : 169
ERRGEESGHFLVAATGTAAGGGGLILASPKLGATPLPESTPAPPPPPPPPPPG : 171
ERRGEES GHFLVAATGTAAGGGGLILASEPKLGATPLPESTPAPPPPPPPPPPG

PCP0815 : 180 200 220
XM_033473 : VSGHNLNIPILILEELRVLQQRQIHQMOMTEQICRQVLLGSLGQTVGAPASPSSELP : 226
VSGHNLNIPILILEELRVLQQRQIHQMOMTEQICRQVLLGSLGQTVGAPASPSSELP : 228
VSGHNLNIPILILEELRVLQQRQIHQMOMTEQICRQVLLGSLGQTVGAPASPSSELP

PCP0815 : 240 260 280
XM_033473 : TGTASSTKPLPLFSPKIPVQTSKTLASSSSSSSSSSGAETPKQAFFHLYHPLGSQH : 283
TGTASSTKPLPLFSPKIPVQTSKTLASSSSSSSSSSGAETPKQAFFHLYHPLGSQH : 285
TGTASSTKPLPLFSPKIPVQTSKTLASSSSSSSSSSGAETPKQAFFHLYHPLGSQH

PCP0815 : 300 320 340
XM_033473 : PFSAGGVGRSHKPTPAPSPALPGSTDQLIASPHLAFPSTGLLAAQCLGAARGLEAT : 340
PFSAGGVGRSHKPTPAPSPALPGSTDQLIASPHLAFPSTGLLAAQCLGAARGLEAT : 342
PFSAGGVGRSHKPTPAPSPALPGSTDQLIASPHLAFPSTGLLAAQCLGAARGLEAT

PCP0815 : 360 380 400
XM_033473 : ASPGLLKPKNGSGELSYGEVMGPLEKPGGRHKCRFCAKVFSGSDSALQIHLRSHTGER : 397
ASPGLLKPKNGSGELSYGEVMGPLEKPGGRHKCRFCAKVFSGSDSALQIHLRSHTGER : 399
ASPGLLKPKNGSGELSYGEVMGPLEKPGGRHKCRFCAKVFSGSDSALQIHLRSHTGER

PCP0815 : 0 420 440
XM_033473 : PYKCNVCGNRFTTRGNLKVHFRHREKYPHVQMNPHVPVEHLDYVITSSGLEPYGMSV : 454
PYKCNVCGNRFTTRGNLKVHFRHREKYPHVQMNPHVPVEHLDYVITSSGLEPYGMSV : 456
PYKCNVCGNRFTTRGNLKVHFRHREKYPHVQMNPHVPVEHLDYVITSSGLEPYGMSV

PCP0815 : 460 480 500
XM_033473 : PPEKAEAAAATPGGGVERKPLVASTTALSATESLTLSTAGTATAPGLPAFNKFVL : 511
PPEKAEAAAATPGGGVERKPLVASTTALSATESLTLSTAGTATAPGLPAFNKFVL : 513
PPEKAEAAAATPGGGVERKPLVASTTALSATESLTLSTAGTATAPGLPAFNKFVL

PCP0815 : 520 540 560
XM_033473 : MKAVEPKNKADENTPPGSEGAISGVAESSTATRMQLSKLVTSLPSWALLTNHFKST : 568
MKAVEPKNKADENTPPGSEGAISGVAESSTATRMQLSKLVTSLPSWALLTNHFKST : 570
MKAVEPKNKADENTPPGSEGAISGVAESSTATRMQLSKLVTSLPSWALLTNHFKST

PCP0815 : 580 600 620
XM_033473 : GSFFPPYVLEPLGASPSSETSKLQQLVEKIDRQGA VAVTSAASGAPTTSA PAPS SSSAS : 625
GSFFPPYVLEPLGASPSSETSKLQQLVEKIDRQGA VAVTSAASGAPTTSA PAPS SSSAS : 627
GSFFPPYVLEPLGASPSSETSKLQQLVEKIDRQGA VAVTSAASGAPTTSA PAPS SSSAS

PCP0815 : 640 660 680
XM_033473 : SGPNQCVICLRVLSCPRALRLHYQHGGGERPFKCKVCGRAFSTRGNLRAHFVGHKAS : 682
SGPNQCVICLRVLSCPRALRLHYQHGGGERPFKCKVCGRAFSTRGNLRAHFVGHKAS : 684
SGPNQCVICLRVLSCPRALRLHYQHGGGERPFKCKVCGRAFSTRGNLRAHFVGHKAS

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FIG. 5A

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      *           700           *           720           *           740
PCP0815 : PAARAQNSCPICQKKFTNAVTLQQHVRMHLGGQIPNGGTALPEGGGAAQENGSEQST : 739
XM_033473 : PAARAQNSCPICQKKFTNAVTLQQHVRMHLGGQIPNGGTALPEGGGAAQENGSEQST : 741
      PAARAQNSCPICQKKFTNAVTLQQHVRMHLGGQIPNGGTALPEGGGAAQENGSEQST

      *           760           *           780           *           8
PCP0815 : VSGAGSFPQQSQQPSPEEELSEEEEEDEEEEEEDVTDEDSLARGSGESGGEKAISV : 796
XM_033473 : VSGAGSFPQQSQQPSPEEELSEEEEEDEEEEEEDVTDEDSLARGSGESGGEKAISV : 798
      VSGAGSFPQQSQQPSPEEELSEEEEEDEEEEEEDVTDEDSLARGSGESGGEKAISV

      00           *           820           *           840           *
PCP0815 : RGDSEEASGAEEVGTAAAAATAGKEMDSNEKTTQSSLP PPPPPD SLDQ P Q P M E Q G : 853
XM_033473 : RGDSEEASGAEEVGTAAAAATAGKEMDSNEKTTQSSLP PPPPPD SLDQ P Q P M E Q G : 855
      RGDSEEASGAEEVGTAAAAATAGKEMDSNEKTTQSSLP PPPPPD SLDQ P Q P M E Q G

      860           *           880           *           900           *
PCP0815 : SSGVLGGKEEGGKPERSSSPASALTPEGEATSVTLVEELSLQEAMRKEPGESSSRKA : 910
XM_033473 : SSGVLGGKEEGGKPERSSSPASALTPEGEATSVTLVEELSLQEAMRKEPGESSSRKA : 912
      SSGVLGGKEEGGKPERSSSPASALTPEGEATSVTLVEELSLQEAMRKEPGESSSRKA

      920           *           940           *           960
PCP0815 : CEVCGQAFPSQAAL E E H Q K T H P K E G P L F T C V F C R Q G F L E R A T L K K H M L L A H H Q N Q Y V : 967
XM_033473 : CEVCGQAFPSQAAL E E H Q K T H P K E G P L F T C V F C R Q G F L E R A T L K K H M L L A H H Q V Q P F : 969
      CEVCGQAFPSQAAL E E H Q K T H P K E G P L F T C V F C R Q G F L E R A T L K K H M L L A H H Q Q

      *           980           *           1000           *           1020
PCP0815 : A F L S N G L P M K P W N S S S T S T T T P S L A P P V L - F G L G T V A G K V P P T M ----- : 1010
XM_033473 : A ----- P H G P O N I A A L S L V - P G C S P S I T S T G L S P F P R K D D P T I P ----- : 1007
      A P P N S P P 6 G L K P T 6

      *           1040           *           1060           *
PCP0815 : -----GSREAKEKTAPLLFQPPAPKAVPEKPIIDKK : 1041
XM_033473 : ----- : -

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FIG. 5B

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      *           20           *           40           *
PCP0840 : MTGIAAASFFSNTCRFGGCGLHFPTLADLIEHIEDNHIDTDPRVLEKQELQQPTYVAL : 58
XM_059862 : -----

      60           *           80           *           100           *
PCP0840 : SYINRFMTDAARREQESLKKKIQPKLSLTSSSVSRGNVSTPPRHSSGSLTPPVTPI : 116
XM_059862 : -----

      120           *           140           *           160           *
PCP0840 : TPSSSFRSSTP-TGSEYDEEEVDYEEESDSDESWTTESAISSEAILSSMCMNGGEEKPF : 173
XM_059862 : -----MNAPRICSEYDEEEVDYEEESDSDESWTTESAISSEAILSSMCMNGGEEKPF : 51
              P      SEYDEEEVDYEEESDSDESWTTESAISSEAILSSMCMNGGEEKPF

      180           *           200           *           220           *
PCP0840 : ACPVPGCKKRYKNVNGIKYHAKNGHRTQIRVRKPFKCRGKSYKTAQGLRHHTINFHP : 231
XM_059862 : ACPVPGCKKRYKNVNGIKYHAKNGHRTQIRVRKPFKCRGKSYKTAQGLRHHTINFHP : 109
              ACPVPGCKKRYKNVNGIKYHAKNGHRTQIRVRKPFKCRGKSYKTAQGLRHHTINFHP

      240
PCP0840 : PVSAEIIIRKMQQ : 243
XM_059862 : PVSAEIIIRKMQQ : 121
              PVSAEIIIRKMQQ

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FIG. 6

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      *           20           *           40           *
PCP0424A : MACREGAGSRRARSNGCRLPRRGRRRRGRRRTVGP GPIHCRGRRALGPRVFRVMEALI : 58
NM_012062 : -----MEALI : 5
PCP0424B : MACREGAGSRRARSNGCRLPRRGRRRRGRRRTVGP GPIHCRGRRALGPRVFRVMEALI : 58
NM_012063 : -----MEALI : 5
PCP0424C : MACREGAGSRRARSNGCRLPRRGRRRRGRRRTVGP GPIHCRGRRALGPRVFRVMEALI : 58
NM_005690 : -----MEALI : 5
                                           MEALI

      60           *           80           *           100           *
PCP0424A : EVINKLQDV FNTVGADIIQLPQIVVVGTQSSGKSSVLES LVGRDLLPRGTGIVTRRPL : 116
NM_012062 : EVINKLQDV FNTVGADIIQLPQIVVVGTQSSGKSSVLES LVGRDLLPRGTGIVTRRPL : 63
PCP0424B : EVINKLQDV FNTVGADIIQLPQIVVVGTQSSGKSSVLES LVGRDLLPRGTGIVTRRPL : 116
NM_012063 : EVINKLQDV FNTVGADIIQLPQIVVVGTQSSGKSSVLES LVGRDLLPRGTGIVTRRPL : 63
PCP0424C : EVINKLQDV FNTVGADIIQLPQIVVVGTQSSGKSSVLES LVGRDLLPRGTGIVTRRPL : 116
NM_005690 : EVINKLQDV FNTVGADIIQLPQIVVVGTQSSGKSSVLES LVGRDLLPRGTGIVTRRPL : 63
                                           EVINKLQDV FNTVGADIIQLPQIVVVGTQSSGKSSVLES LVGRDLLPRGTGIVTRRPL

      120          *           140          *           160          *
PCP0424A : ILQLVHV TQEDKRKTTGEENGVEAEW GKF LHTKNKLYTDFDEIRQEIENETERISGN : 174
NM_012062 : ILQLVHV TQEDKRKTTGEENGVEAEW GKF LHTKNKLYTDFDEIRQEIENETERISGN : 121
PCP0424B : ILQLVHV TQEDKRKTTGEENGVEAEW GKF LHTKNKLYTDFDEIRQEIENETERISGN : 174
NM_012063 : ILQLVHV TQEDKRKTTGEENGVEAEW GKF LHTKNKLYTDFDEIRQEIENETERISGN : 121
PCP0424C : ILQLVHV TQEDKRKTTGEENGVEAEW GKF LHTKNKLYTDFDEIRQEIENETERISGN : 174
NM_005690 : ILQLVHV TQEDKRKTTGEENGVEAEW GKF LHTKNKLYTDFDEIRQEIENETERISGN : 121
                                           ILQLVHV TQEDKRKTTGEENGVEAEW GKF LHTKNKLYTDFDEIRQEIENETERISGN

      180          *           200          *           220          *
PCP0424A : NKGVSPEPIHLKIFSPNVVNLTLDLPGMTKVPVGDQPKDIELQIRELILRFISNPNS : 232
NM_012062 : NKGVSPEPIHLKIFSPNVVNLTLDLPGMTKVPVGDQPKDIELQIRELILRFISNPNS : 179
PCP0424B : NKGVSPEPIHLKIFSPNVVNLTLDLPGMTKVPVGDQPKDIELQIRELILRFISNPNS : 232
NM_012063 : NKGVSPEPIHLKIFSPNVVNLTLDLPGMTKVPVGDQPKDIELQIRELILRFISNPNS : 179
PCP0424C : NKGVSPEPIHLKIFSPNVVNLTLDLPGMTKVPVGDQPKDIELQIRELILRFISNPNS : 232
NM_005690 : NKGVSPEPIHLKIFSPNVVNLTLDLPGMTKVPVGDQPKDIELQIRELILRFISNPNS : 179
                                           NKGVSPEPIHLKIFSPNVVNLTLDLPGMTKVPVGDQPKDIELQIRELILRFISNPNS

      240          *           260          *           280          *
PCP0424A : IILAVTAANTDMATSEALKISREVD PDGRTLAVITKLDLMDAGTDAMDVLMGRVIPV : 290
NM_012062 : IILAVTAANTDMATSEALKISREVD PDGRTLAVITKLDLMDAGTDAMDVLMGRVIPV : 237
PCP0424B : IILAVTAANTDMATSEALKISREVD PDGRTLAVITKLDLMDAGTDAMDVLMGRVIPV : 290
NM_012063 : IILAVTAANTDMATSEALKISREVD PDGRTLAVITKLDLMDAGTDAMDVLMGRVIPV : 237
PCP0424C : IILAVTAANTDMATSEALKISREVD PDGRTLAVITKLDLMDAGTDAMDVLMGRVIPV : 290
NM_005690 : IILAVTAANTDMATSEALKISREVD PDGRTLAVITKLDLMDAGTDAMDVLMGRVIPV : 237
                                           IILAVTAANTDMATSEALKISREVD PDGRTLAVITKLDLMDAGTDAMDVLMGRVIPV

      300          *           320          *           340
PCP0424A : KLGIIIGVVNRSQLDINNKKSVTDSIRDEYAFLOKKYPSLANRNGTKYLARTLNRLMH : 348
NM_012062 : KLGIIIGVVNRSQLDINNKKSVTDSIRDEYAFLOKKYPSLANRNGTKYLARTLNRLMH : 295
PCP0424B : KLGIIIGVVNRSQLDINNKKSVTDSIRDEYAFLOKKYPSLANRNGTKYLARTLNRLMH : 348
NM_012063 : KLGIIIGVVNRSQLDINNKKSVTDSIRDEYAFLOKKYPSLANRNGTKYLARTLNRLMH : 295
PCP0424C : KLGIIIGVVNRSQLDINNKKSVTDSIRDEYAFLOKKYPSLANRNGTKYLARTLNRLMH : 348
NM_005690 : KLGIIIGVVNRSQLDINNKKSVTDSIRDEYAFLOKKYPSLANRNGTKYLARTLNRLMH : 295
                                           KLGIIIGVVNRSQLDINNKKSVTDSIRDEYAFLOKKYPSLANRNGTKYLARTLNRLMH

      *           360          *           380          *           400
PCP0424A : HIRDCLELKT RINVLAAQYQSLN SYGEPVDDKSATLLQLITKFATEYCN TIEGTAK : 406
NM_012062 : HIRDCLELKT RINVLAAQYQSLN SYGEPVDDKSATLLQLITKFATEYCN TIEGTAK : 353
PCP0424B : HIRDCLELKT RINVLAAQYQSLN SYGEPVDDKSATLLQLITKFATEYCN TIEGTAK : 406
NM_012063 : HIRDCLELKT RINVLAAQYQSLN SYGEPVDDKSATLLQLITKFATEYCN TIEGTAK : 353
PCP0424C : HIRDCLELKT RINVLAAQYQSLN SYGEPVDDKSATLLQLITKFATEYCN TIEGTAK : 406
NM_005690 : HIRDCLELKT RINVLAAQYQSLN SYGEPVDDKSATLLQLITKFATEYCN TIEGTAK : 353
                                           HIRDCLELKT RINVLAAQYQSLN SYGEPVDDKSATLLQLITKFATEYCN TIEGTAK

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FIG. 7A

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      *           420           *           440           *           460
PCP0424A : YIETSELCCGGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEV : 464
NM_012062 : YIETSELCCGGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEV : 411
PCP0424B : YIETSELCCGGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEV : 464
NM_012063 : YIETSELCCGGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEV : 411
PCP0424C : YIETSELCCGGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEV : 464
NM_005690 : YIETSELCCGGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEV : 411
      YIETSELCCGGARICYIFHETFGRTLESVDPLGGLNTIDILTAIRNATGPRPALFVPEV

      *           480           *           500           *           520
PCP0424A : SFELLVKRQIKRLEEPSLRCVELVHEEMQRRIQHCSNYSTQELLRFPKLHDAIVEVVT : 522
NM_012062 : SFELLVKRQIKRLEEPSLRCVELVHEEMQRRIQHCSNYSTQELLRFPKLHDAIVEVVT : 469
PCP0424B : SFELLVKRQIKRLEEPSLRCVELVHEEMQRRIQHCSNYSTQELLRFPKLHDAIVEVVT : 522
NM_012063 : SFELLVKRQIKRLEEPSLRCVELVHEEMQRRIQHCSNYSTQELLRFPKLHDAIVEVVT : 469
PCP0424C : SFELLVKRQIKRLEEPSLRCVELVHEEMQRRIQHCSNYSTQELLRFPKLHDAIVEVVT : 522
NM_005690 : SFELLVKRQIKRLEEPSLRCVELVHEEMQRRIQHCSNYSTQELLRFPKLHDAIVEVVT : 469
      SFELLVKRQIKRLEEPSLRCVELVHEEMQRRIQHCSNYSTQELLRFPKLHDAIVEVVT

      *           540           *           560           *           580
PCP0424A : CLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA : 580
NM_012062 : CLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA : 527
PCP0424B : CLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA : 580
NM_012063 : CLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA : 527
PCP0424C : CLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA : 580
NM_005690 : CLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA : 527
      CLLRKRLPVTNEMVHNLVAIELAYINTKHPDFADACGLMNNNIEEQRRNRLARELPSA

      *           600           *           620           *           6
PCP0424A : VSRDK-----SSKVPASALAPASQEPSPAASAEADGKL : 612
NM_012062 : VSRDKSSKVPASALAPASQEPSPAASAEADGK-----L : 559
PCP0424B : VSRDK-----L : 586
NM_012063 : VSRDK-----L : 533
PCP0424C : VSRDK-----L : 585
NM_005690 : VSRDK-----L : 532
      VSRDK

      40           *           660           *           680           *
PCP0424A : IQDSRRETKNVASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASP : 670
NM_012062 : IQDSRRETKNVASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASP : 617
PCP0424B : IQDSRRETKNVASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASP : 644
NM_012063 : IQDSRRETKNVASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASP : 591
PCP0424C : -----VASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASP : 633
NM_005690 : -----VASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASP : 580
      VASGGGGVGDGVQEPPTGNWRGMLKTSKAEELLAEKSKPIIMPASP

      700           *           720           *           740           *
PCP0424A : QKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLV : 728
NM_012062 : QKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLV : 675
PCP0424B : QKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLV : 702
NM_012063 : QKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLV : 649
PCP0424C : QKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLV : 691
NM_005690 : QKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLV : 638
      QKGHAVNLLDVPVPVARKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLV

      760           *           780           *           800           *
PCP0424A : NHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRET : 786
NM_012062 : NHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRET : 733
PCP0424B : NHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRET : 760
NM_012063 : NHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRET : 707
PCP0424C : NHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRET : 749
NM_005690 : NHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRET : 696
      NHVKDTLQSELVGQLYKSSLLDDLLTESEDMAQRRKEAADMLKALQGASQIIAEIRET

PCP0424A : HLW : 789
NM_012062 : HLW : 736
PCP0424B : HLW : 763
NM_012063 : HLW : 710
PCP0424C : HLW : 752
NM_005690 : HLW : 699
      HLW

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FIG. 7B

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      *           20           *           40           *           60
PCP0816 : MAEPGSHHLSARVRGRTERRI PRLWRLLWAGTAFQV TQGTGP ELHACK ESEYHYEYTA : 60
XM_042775 : MAEPGSHHLSARVRGRTERRI PRLWRLLWAGTAFQV TQGTGP ELHACK ESEYHYEYTA : 60

      *           80           *           100          *           120
PCP0816 : CDSTGSRWRVAVPHTPGLCTSLPDPVKGT ECFSCNAGEFLDMKDQSC KPCAEGRYS LGT : 120
XM_042775 : CDSTGSRWRVAVPHTPGLCTSLPDPVKGT ECFSCNAGEFLDMKDQSC KPCAEGRYS LGT : 120

      *           140          *           160           *           180
PCP0816 : GIRFDEWDELPHGFASLSANMELDDSA AESTGNCTSSKWVPRGDY IASNTDECTATL MYA : 180
XM_042775 : GIRFDEWDELPHGFASLSANMELDDSA AESTGNCTSSKWVPRGDY IASNTDECTATL MYA : 180

      *           200          *           220          *           240
PCP0816 : VNLKQSGTVNFEYYPDSSII FEFVQNDQCQPNADDSRWMKTTEKGW EFH SVELNRGN N : 240
XM_042775 : VNLKQSGTVNFEYYPDSSII FEFVQNDQCQPNADDSRWMKTTEKGW EFH SVELNRGN N : 240

      *           260          *           280           *           300
PCP0816 : VLYWRRTAFSVWTKVPKPV LVRNIAITGVAYTSECF PCKPGTYADKQGS SFCKLCPANSY : 300
XM_042775 : VLYWRRTAFSVWTKVPKPV LVRNIAIT----- : 267

      *           320          *           340           *           360
PCP0816 : SNKGETSCHQC DDPDKYS EKGSSSCNVRPACTDKDYFY THTACDANGETQLMYK WAKPKIC : 360
XM_042775 : -----EKGSSSCNVRPACTDKDYFY THTACDANGETQLMYK WAKPKIC : 310

      *           380          *           400           *           420
PCP0816 : SEDLEGAVKL PASGVKTHCPPCNP GF FKTNNSTCQPCPYGSYSNGSDCTRC PAGTEPAVG : 420
XM_042775 : SEDLEGAVKL PASGVKTHCPPCNP GF FKTNNSTCQPCPYGSYSNGSDCTRC PAGTEPAVG : 370

      *           440          *           460           *           480
PCP0816 : FEYKWWNTLPTNMETTVLSG INFEYKGMTGWEVAGDHIYTAAGASD NDFMILT LVVPGFR : 480
XM_042775 : FEYKWWNTLPTNMETTVLSG INFEYKGMTGWEVAGDHIYTAAGASD NDFMILT LVVPGFR : 430

      *           500          *           520           *           540
PCP0816 : PPQSV MADTENKEVARITFVFETLCSVNC ELYFMVGVNSRTNTPVETWKGSKGKQSYTYI : 540
XM_042775 : PPQSV MADTENKEVARITFVFETLCSVNC ELYFMVGVNSRTNTPVETWKGSKGKQSYTYI : 490

      *           560          *           580           *           600
PCP0816 : IEENTTTSFTWAFORTTFHEASRKYTNDVAKIYS INVTNVMNGVAS YCRPCALEASDVGS : 600
XM_042775 : IEENTTTSFTWAFORTTFHEASRKYTNDVAKIYS INVTNVMNGVAS YCRPCALEASDVGS : 550

      *           620          *           640           *           660
PCP0816 : SCTSCPAGYYIDRDSGTCHSCPTNTILKAHQPYGVQACVPCGPGTKNNKI HSLCYNDCTF : 660
XM_042775 : SCTSCPAGYYIDRDSGTCHSCPTNTILKAHQPYGVQACVPCGPGTKNNKI HSLCYNDCTF : 610

      *           680          *           700           *           720
PCP0816 : SRNTPTRTFN YNESALANTVTLAGGPSFTSKGLKYFHHFTLSLCGNQGRKMSVCTDNVTD : 720
XM_042775 : SRNTPTRTFN YNESALANTVTLAGGPSFTSKGLKYFHHFTLSLCGNQGRKMSVCTDNVTD : 670

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FIG. 8A

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      *           740           *           760           *           780
PCP0816 : LRIPEGESGFSKSITAYVCQAVIIPPEVTGYKAGVSSQPVSLADRLIGVTTDMTLDGITS : 780
XM_042775 : LRIPEGESGFSKSITAYVCQAVIIPPEVTGYKAGVSSQPVSLADRLIGVTTDMTLDGITS : 730

      *           800           *           820           *           840
PCP0816 : PAELFHLESLGIPDVIFFYRSNDVTQSCSSGRSTTIRVRCSPQKTVPGSLLLPGTCS DGT : 840
XM_042775 : PAELFHLESLGIPDVIFFYRSNDVTQSCSSGRSTTIRVRCSPQKTVPGSLLLPGTCS DGT : 790

      *           860           *           880           *           900
PCP0816 : CDGCNFHFLWESAAACPLCSVADYHAIVSSCVAGIQKTTYVWREPKLCSGGISLPEQRVT : 900
XM_042775 : CDGCNFHFLWESAAACPLCSVADYHAIVSSCVAGIQKTTYVWREPKLCSGGISLPEQRVT : 850

      *           920           *           940           *           960
PCP0816 : ICKTIDFWLKVGISAGTCTAILLTVLTCYFWKKKNQKLEYKYSKLV MNATLKDCDLPAADS : 960
XM_042775 : ICKTIDFWLKVGISAGTCTAILLTVLTCYFWKKKNQKLEYKYSKLV MNATLKDCDLPAADS : 910

      *           980           *           1000           *
PCP0816 : CAIMEGEDVEDDLIFTSKKSLEFGIKSFTSKRTEDGFDSVPLKTS SGGPMDL : 1013
XM_042775 : CAIMEGEDVEDDLIFTSKKSLEFGIKSFTSKQ-P-----APV-TISLSEDS-- : 954

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FIG. 8B



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      *           20           *           40           *           60
PCP0480 : MTMTLHTKASGMALLHQIQGNELEPLNRPQLKIPLERPLGEVYLDSSKPAVYNYPEGAAY : 60
NM_000125 : MTMTLHTKASGMALLHQIQGNELEPLNRPQLKIPLERPLGEVYLDSSKPAVYNYPEGAAY : 60

      *           80           *           100          *           120
PCP0480 : EFNAAAAANAQVYGQTGLPYGPGSEAAAFGSNGLGGFPPLNSVSPSPLMLLHPPPLSFF : 120
NM_000125 : EFNAAAAANAQVYGQTGLPYGPGSEAAAFGSNGLGGFPPLNSVSPSPLMLLHPPPLSPF : 120

      *           140          *           160           *           180
PCP0480 : LQPHGQQVPYYLENEPSGYTVREAGPPAFYRMVLSCGLSSRVSHWMFREFM----- : 171
NM_000125 : LQPHGQQVPYYLENEPSGYTVREAGPPAFYRPNSDNRRQGGRRERLASTNDKGSMAVESAK : 180

      *           200          *           220           *           240
PCP0480 : ----- : -
NM_000125 : ETRYCAVCNDYASGYHYGVWSCEGCKAFFKRSIQGHNDYMCPATNQCTIDKNRRKSCQAC : 240

      *           260          *           280           *           300
PCP0480 : ----- : -
NM_000125 : RLRKCYEVGMMKGGIRKDRRGGRMLKHKRQRDDGEGRGEVGSAGDMRAANLWPSPLMIKR : 300

      *           320          *           340           *           360
PCP0480 : ----- : -
NM_000125 : SKKNSLALSILTADQMVSAALLDAEPPILYSEYDPTRPFSEASMMGLLTNLADRELVHMINW : 360

      *           380          *           400           *           420
PCP0480 : ----- : -
NM_000125 : AKRVPGFVDLTLHDQVHLLECAWLEILMIGLVWRSMHPVKLLFAPNLLLDNRNQGKCVGE : 420

      *           440          *           460           *           480
PCP0480 : ----- : -
NM_000125 : MVEIFDMLLATSSRFRMMNLQGEFVCLKSIILLNSGVYTFLSSTLKSLEEKDHIHRVLD : 480

      *           500          *           520           *           540
PCP0480 : ----- : -
NM_000125 : KITDTLIHLMAKAGLTQQQHQRLAQLLLILSHIRHMSNKGMEHLYSMKCKNVVPLYDLL : 540

      *           560          *           580           *
PCP0480 : ----- : -
NM_000125 : LEMLDHRLHAPTSRGGASVEETDQSHLATAGSTSSHSLQKYYITGEAEGFPATV : 595

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FIG. 9

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      *           20           *           40           *           60
XM_094949 : -----MIKDWTKEHVKKWVNEDLKINEQYGQILLSEEV TGLVLQELTEKDLVEMGL : 51
PC0382    : MSKQVSLPEMIKDWTKEHVKKWVNEDLKINEQYGQILLSEEV TGLVLQELTEKDLVEMGL : 60

      *           80           *           100          *           120
XM_094949 : PWGPALLIKRSYNKLNKSKSPESDNHDPGQLDNSKPSKTEHQKNPKHTKKEEENSMSNNID : 111
PC0382    : PWGPALLIKRSYNKLNKSKSPESDNHDPGQLDNSKPSKTEHQKNPKHTKKEEENSMSNNID : 120

      *           140          *           160          *           180
XM_094949 : YDPREIRDIKQEE SILMKENVLDEVANAKHKKKGLKPEQLTCMPYPFDQFHD SHRYIEH : 171
PC0382    : YDPREIRDIKQEE SILMKENVLDEVANAKHKKKGLKPEQLTCMPYPFDQFHD SHRYIEH : 180

      *           200          *           220          *           240
XM_094949 : YTLQPETGALNLDIPIHEFKALTNTETATEVDIKMKFSENEVFRFASACMNSRTNGTTHFG : 231
PC0382    : YTLQPETGALNLDIPIHEFKALTNTETATEVDIKMKFSENEVFRFASACMNSRTNGTTHFG : 240

      *           260          *           280          *           300
XM_094949 : VKDKPHGEIVGVKITSKAAFI DHFNVMIKKYFESEINEAKKCIREPRFVEVLLQNNTPS : 291
PC0382    : VKDKPHGEIVGVKITSKAAFI DHFNVMIKKYFESEINEAKKCIREPRFVEVLLQNNTPS : 300

      *           320          *           340          *           360
XM_094949 : DRFVIEVDTI PKHSICNDKYFYIQMQICKDKIWKQNQLSLFVREGASSRDILANSKQRD : 351
PC0382    : DRFVIEVDTI PKHSICNDKYFYIQMQICKDKIWKQNQLSLFVREGASSRDILANSKQRD : 360

      *           380          *           400          *           420
XM_094949 : VDFKAFQLNKLKSLVASRKEAEE EYGMKAMKKESEGLKLVKLLIGNRDSL DNSYYDWYILV : 411
PC0382    : VDFKAFQLNKLKSLVASRKEAEE EYGMKAMKKESEGLKLVKLLIGNRDSL DNSYYDWYILV : 420

      *           440          *           460          *           480
XM_094949 : TNKCHPNQIKHLDLKEIKWFAVLEFDPESMINGVVKAYKESRVANLHFPNQYEDKTTNM : 471
PC0382    : TNKCHPNQIKHLDLKEIKWFAVLEFDPESMINGVVKAYKESRVANLHFPNQYEDKTTNM : 480

      *           500          *           520          *           540
XM_094949 : WEKISTLNLYQOPSWIFCNGRSDLKSETYKPLEPHLWQERASEVRKLILFLT DENINTR : 531
PC0382    : WEKISTLNLYQOPSWIFCNGRSDLKSETYKPLEPHLWQERASEVRKLILFLT DENINTR : 540

      *           560          *           580          *           600
XM_094949 : GKFLVVFLLSSVESPGDPLIETF WAFYQALKGMENMLCISVNSHIYQRWKDLLQTRMKM : 591
PC0382    : GKFLVVFLLSSVESPGDPLIETF WAFYQALKGMENMLCISVNSHIYQRWKDLLQTRMKM : 600

      *           620          *           640          *           660
XM_094949 : EDEL TNHSISTLNIELVNSTILKLSVTRSSRRFLPARGSSSVILEKKKEDVLT ALEILC : 651
PC0382    : EDEL TNHSISTLNIELVNSTILKLSVTRSSRRFLPARGSSSVILEKKKEDVLT ALEILC : 660

      *           680          *           700          *           720
XM_094949 : ENECTETDIEKDKSKFLEFKKSKEEHFYRG GKVSWWNFYFSSSENYSSDFV KRDSYEKLKD : 711
PC0382    : ENECTETDIEKDKSKFLEFKKSKEEHFYRG GKVSWWNFYFSSSENYSSDFV KRDSYEKLKD : 720

      *           740          *           760          *           780
XM_094949 : LIHCWAESP KPIFAKIINLYHHPGCGGTTLAMHVLWDLKKNFRCAVLKNKTTDFAEIAEQ : 771
PC0382    : LIHCWAESP KPIFAKIINLYHHPGCGGTTLAMHVLWDLKKNFRCAVLKNKTTDFAEIAEQ : 780

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FIG. 10A

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      *           800           *           820           *           840
XM_094949 : VINLVTRYAKSHQDYIPVLLLVDDFEEQENVYFLQNAIHSVLAEKDLRYEKTLLVILNCM : 831
PC0382    : VINLVTRYAKSHQDYIPVLLLVDDFEEQENVYFLQNAIHSVLAEKDLRYEKTLLVILNCM : 840

      *           860           *           880           *           900
XM_094949 : RSRNPDESADSLADSIALNYQLSSKEQRAFGAKLKEIEKQHKNCENFYFSMIMKSNFDETY : 891
PC0382    : RSRNPDESADSLADSIALNYQLSSKEQRAFGAKLKEIEKQHKNCENFYFSMIMKSNFDETY : 900

      *           920           *           940           *           960
XM_094949 : IENVVRNILKGQDVDSKEAQLISFLALLSSYVTDSTISVSQCEIFLGIIYTSTPWEPESE : 951
PC0382    : IENVVRNILKGQDVDSKEAQLISFLALLSSYVTDSTISVSQCEIFLGIIYTSTPWEPESE : 960

      *           980           *          1000           *          1020
XM_094949 : EDKMGTYSTLLIKTEVAEYGRYTGVRRIIHPILIALYCLKELERSYHLDKCQIALNILEENL : 1011
PC0382    : EDKMGTYSTLLIKTEVAEYGRYTGVRRIIHPILIALYCLKELERSYHLDKCQIALNILEENL : 1020

      *          1040           *          1060           *          1080
XM_094949 : FYDSGIGRDKFQHDVOTLLLTRQRKVYGDETDTLFSPLMEALQNKDIEKVL SAGSRFPQ : 1071
PC0382    : FYDSGIGRDKFQHDVOTLLLTRQRKVYGDETDTLFSPLMEALQNKDIEKVL SAGSRFPQ : 1080

      *          1100           *          1120           *          1140
XM_094949 : NAFICQALARHFYIKEKDFNTALDWARQAKMKAPKNSYISDTLGQVYKSEIKWWLDGNKN : 1131
PC0382    : NAFICQALARHFYIKEKDFNTALDWARQAKMKAPKNSYISDTLGQVYKSEIKWWLDGNKN : 1140

      *          1160           *          1180           *          1200
XM_094949 : CRSITVNDLTHLLEAAEKASRAFKEQSRQTD SKNYETENWSPQKSQRRYDMYNTACFLGE : 1191
PC0382    : CRSITVNDLTHLLEAAEKASRAFKEQSRQTD SKNYETENWSPQKSQRRYDMYNTACFLGE : 1200

      *          1220           *          1240           *          1260
XM_094949 : IEVGLYTIQILQLTPFFHKENELSKKHMVQFLSGKWTIPDP RNECYLALSKEFTSHLKNL : 1251
PC0382    : IEVGLYTIQILQLTPFFHKENELSKKHMVQFLSGKWTIPDP RNECYLALSKEFTSHLKNL : 1260

      *          1280           *          1300           *          1320
XM_094949 : QSDLKRCFDFFIDYMVLLKMRYTQKEIAEIMLSKKVSRCFRKYTEL FCHLDPCLLQSKES : 1311
PC0382    : QSDLKRCFDFFIDYMVLLKMRYTQKEIAEIMLSKKVSRCFRKYTEL FCHLDPCLLQSKES : 1320

      *          1340           *          1360           *          1380
XM_094949 : QLLQEENCRKKLEALRADRFAGLLEYLNP NYKDATTMESIVNEYAFL LQONSKKPMTNEH : 1371
PC0382    : QLLQEENCRKKLEALRADRFAGLLEYLNP NYKDATTMESIVNEYAFL LQONSKKPMTNEH : 1380

      *          1400           *          1420           *          1440
XM_094949 : QNSILANIILSCLKPNSKLIQPLTTLKKQLREV LQFVGLSHQYPGPYFLACLLFWPENQE : 1431
PC0382    : QNSILANIILSCLKPNSKLIQPLTTLKKQLREV LQFVGLSHQYPGPYFLACLLFWPENQE : 1440

      *          1460           *          1480           *          1500
XM_094949 : LDQDSKLI EKYVSSLNRSFRGQYKRMCRSKQASTLFYLGKRKGLNSIVH KAKIEQYFDKA : 1491
PC0382    : LDQDSKLI EKYVSSLNRSFRGQYKRMCRSKQASTLFYLGKRKGLNSIVH KAKIEQYFDKA : 1500

      *          1520           *          1540           *          1560
XM_094949 : QNTNSLWHSGDVWKKNEVKDLLRRLTGQAEGKLISVEYGT EEEKIKIPVISVSGPLRSGR : 1551
PC0382    : QNTNSLWHSGDVWKKNEVKDLLRRLTGQAEGKLISVEYGT EEEKIKIPVISVSGPLRSGR : 1560

      *          1580
XM_094949 : NIERVSFYLGFSIEGPLAYDIEVI : 1575
PC0382    : NIERVSFYLGFSIEGPLAYDIEVI : 1584

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FIG. 10B

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      *           20           *           40           *           60
PCP0842 : MEEILRK LQKEAS GSKYKA IKESCTWA LETLGGLDTIAKIPPHV LREKCLLP LQLALESK : 60
XM_050424 : ----- : -

      *           80           *           100          *           120
PCP0842 : NVKLAQHALAGMQKLLSEERFVSMETDSDEKQLLNQILNAVKVTPSLNEDLQVEVMKVLL : 120
XM_050424 : ----- : -

      *           140          *           160          *           180
PCP0842 : CITYTPTFDLNGSAVLKIAEVCIEYIISCHQRSINTAVRATLSQMLS DLT LQLRQRQEN : 180
XM_050424 : ----- : -

      *           200          *           220          *           240
PCP0842 : TIIENPDVPQDFGNQGSTVESL CDDVVS VLT V LCEKLQAAIKCPSFLTMACWNSGAGTQI : 240
XM_050424 : ----- : -

      *           260          *           280          *           300
PCP0842 : TILTEGSS TNCSDPIWDTTASPVAASDSQQLQLLYLECILSVLSSSSSSMHLHRRFTDLI : 300
XM_050424 : ----- : -

      *           320          *           340          *           360
PCP0842 : WKNLCPALIVILGNPIHDKTITSAHTSSTSTSLES DSASPGVSDHGRGSGCCTAPALSG : 360
XM_050424 : ----- : -

      *           380          *           400          *           420
PCP0842 : PVARTIYYIAAELVRLVGSVD SMKPV LQSLYHRVLLYPPPPQHRVEAIKIMKEILGSPQRL : 420
XM_050424 : ----- : -

      *           440          *           460          *           480
PCP0842 : CDLAGPSSTESES RKR SISK RKSHLDLLKLIMDG MTEACIKGGIEACYAAVSCVCTLLGA : 480
XM_050424 : ----- MTEACIKGGIEACYAAVSCVCTLLGA : 26

      *           500          *           520          *           540
PCP0842 : LDELSQ GKGLSEGQVQL LLLRL EELKDGAEWSRDSMEINEADFRWQRRVLSSEHTPWESG : 540
XM_050424 : LDELSQ GKGLSEGQVQL LLLRL EELKDGAEWSRDSMEINEADFRWQRRVLSSEHTPWESG : 86

      *           560          *           580          *           600
PCP0842 : NERSLDISISVTTDTGQT TLEGE LGQTT PEDHSGNHKNSLKS PAIPEGKETLSKVLETEA : 600
XM_050424 : NERSLDISISVTTDTGQT TLEGE LGQTT PEDHSGNHKNSLKS PAIPEGKETLSKVLETEA : 146

      *           620          *           640          *           660
PCP0842 : VDQPDVVQ RSH TVPYPDITNFLSVDCRTRSYGSRYS ES NF SVDDQDLS RTEFDSCDQYSM : 660
XM_050424 : VDQPDVVQ RSH TVPYPDITNFLSVDCRTRSYGSRYS ES NF SVDDQDLS RTEFDSCDQYSM : 206

      *           680          *           700          *           720
PCP0842 : AA EKDSGRSDVSDIGSDNCSLADEEQTPRDCLGHRSLRTAALSLKLLKNQEADQHSARLF : 720
XM_050424 : AA EKDSGRSDVSDIGSDNCSLADEEQTPRDCLGHRSLRTAALSLKLLKNQEADQHSARLF : 266

      *           740          *           760          *           780
PCP0842 : IQSLEGLLP RLLSLSNVEEVD TALQNFASTFCSGMMHSPGFDGNSSLSFQMLMNADSLYT : 780
XM_050424 : IQSLEGLLP RLLSLSNVEEVD TALQNFASTFCSGMMHSPGFDGNSSLSFQMLMNADSLYT : 326

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FIG. 11A

PCP0842	:	AAHCALLLNKLSHGDIYRKRPTLAPGVMMKDFMKQVQTSGVLMVFSQAWIEELYHQVLD	:	840
XM_050424	:	AAHCALLLNKLSHGDIYRKRPTLAPGVMMKDFMKQVQTSGVLMVFSQAWIEELYHQVLD	:	386
PCP0842	:	NMLGEAGYWGSPEDNSLPLITMLTDIDGLESAIGGQLMASAATESPFAQSRRIDDS	:	900
XM_050424	:	NMLGEAGYWGSPEDNSLPLITMLTDIDGLESAIGGQLMASAATESPFAQSRRIDDS	:	446
PCP0842	:	GVAFARYILVGCWKNLIDTLSTPLTGRMAGSSKGLAFILGAEGIKEQNQKERDAICMS	:	960
XM_050424	:	GVAFARYILVGCWKNLIDTLSTPLTGRMAGSSKGLAFILGAEGIKEQNQKERDAICMS	:	506
PCP0842	:	GLRKAARLSCALGVAANCASALAQMAAAASCVQEEKEEREAEPSDAITQVKLKVEQ	:	1020
XM_050424	:	GLRKAARLSCALGVAANCASALAQMAAAASCVQEEKEEREAEPSDAITQVKLKVEQ	:	566
PCP0842	:	IGKVQGVWLHTAHVLCMEAILSVGLEMGSHNPDCWPHVFRVCEYVGTLEHNNHSDGAS	:	1080
XM_050424	:	IGKVQGVWLHTAHVLCMEAILSVGLEMGSHNPDCWPHVFRVCEYVGTLEHNNHSDGAS	:	626
PCP0842	:	PLTISQPKATGSAGLLGDPECEGSPPEHSPEQGRSLSTAPVVQPLSIQDLVREGSR	:	1140
XM_050424	:	PLTISQPKATGSAGLLGDPECEGSPPEHSPEQGRSLSTAPVVQPLSIQDLVREGSR	:	686
PCP0842	:	SDFRGGSLMSGSSAAKVVLTLSTQADRLFEDATDKLNLMLALGGFLYQLKKASQ	:	1200
XM_050424	:	SDFRGGSLMSGSSAAKVVLTLSTQADRLFEDATDKLNLMLALGGFLYQLKKASQ	:	746
PCP0842	:	TDTVDYSLAMPGEVKSTQDRKSALHLFRLGNAMLRIVRSKARELLHVMRCWSLVAPHL	:	1260
XM_050424	:	TDTVDYSLAMPGEVKSTQDRKSALHLFRLGNAMLRIVRSKARELLHVMRCWSLVAPHL	:	806
PCP0842	:	AACHKERHVSQKAVSFIHDILTEVLTWDWNEPPHFHNEALFRPFERIMQLELCDE	:	1320
XM_050424	:	AACHKERHVSQKAVSFIHDILTEVLTWDWNEPPHFHNEALFRPFERIMQLELCDE	:	866
PCP0842	:	VVTSIGELVEVCSTQIQSGWRPLFSALETVHGGNKSEMKEYLVGDYSMGKGQAPV	:	1380
XM_050424	:	VVTSIGELVEVCSTQIQSGWRPLFSALETVHGGNKSEMKEYLVGDYSMGKGQAPV	:	926
PCP0842	:	AFLNTDNIQVFANAATSYIMCLMKFVKGLGEVDCKEIGDCAPAPGAPSTDLC	:	1440
XM_050424	:	AFLNTDNIQVFANAATSYIMCLMKFVKGLGEVDCKEIGDCAPAPGAPSTDLC	:	986
PCP0842	:	RCSQLLAKIYKMLKPIFLSGRLAGLPRRLQEASSEDGIESVLSDFDDDTGLIEV	:	1500
XM_050424	:	RCSQLLAKIYKMLKPIFLSGRLAGLPRRLQEASSEDGIESVLSDFDDDTGLIEV	:	1046
PCP0842	:	LLEQLTAAVSNCPQHQPPTLDLLFELLRDVTKTPGPGFGIYAVVHLLLPVMSV	:	1560
XM_050424	:	LLEQLTAAVSNCPQHQPPTLDLLFELLRDVTKTPGPGFGIYAVVHLLLPVMSV	:	1106

FIG. 11B

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      *      1580      *      1600      *      1620
PCP0842 : KDHSYWDMASANFKHAIGLSCELVVEHIQSFLHSDIRYESMINTMLKDLFELLVACVAKP : 1620
XM_050424 : KDHSYWDMASANFKHAIGLSCELVVEHIQSFLHSDIRYESMINTMLKDLFELLVACVAKP : 1166

      *      1640      *      1660      *      1680
PCP0842 : TETISRVGCSCIRYVLVTAGPVFTEEMWRLACCALQDAFSATLKPVKDLLGCFHSGTESF : 1680
XM_050424 : TETISRVGCSCIRYVLVTAGPVFTEEMWRLACCALQDAFSATLKPVKDLLGCFHSGTESF : 1226

      *      1700      *      1720      *      1740
PCP0842 : SGEGCQVRVAAPSSSSPAEAEYWRI RAMAQQVFMLDTQCSPKTPNNFDHAQSCQLIIELEP : 1740
XM_050424 : SGEGCQVRVAAPSSSSPAEAEYWRI RAMAQQVFMLDTQCSPKTPNNFDHAQSCQLIIELEP : 1286

      *      1760      *      1780      *      1800
PCP0842 : PDEKPNGHTKKSVSFREIVVSLLSHQVLLQONLYDILLEEFVKGPSPGEEKTIQVPEAKLA : 1800
XM_050424 : PDEKPNGHTKKSVSFREIVVSLLSHQVLLQONLYDILLEEFVKGPSPGEEKTIQVPEAKLA : 1346

      *      1820      *      1840      *      1860
PCP0842 : GFLRYISMQNLAVIFDLLLLSYRTAREFDTSPLKCLLKKVSGIGGAANLYRQSAMSFNI : 1860
XM_050424 : GFLRYISMQNLAVIFDLLLLSYRTAREFDTSPLKCLLKKVSGIGGAANLYRQSAMSFNI : 1406

      *      1880      *      1900      *      1920
PCP0842 : YFHALVCAVLTNQETITAEQVKKVLFEDDERSTDSSQQCSSEDEDI FEETAQVSPPRGKE : 1920
XM_050424 : YFHALVCAVLTNQETITAEQVKKVLFEDDERSTDSSQQCSSEDEDI FEETAQVSPPRGKE : 1466

      *      1940      *      1960      *      1980
PCP0842 : KRQWRARMPLLSVQPVSNADWVWLKRLHKLKLMELCNNTIOMHLDLENCMEEPPIFKGDP : 1980
XM_050424 : KRQWRARMPLLSVQPVSNADWVWLKRLHKLKLMELCNNTIOMHLDLENCMEEPPIFKGDP : 1526

      *      2000      *      2020      *      2040
PCP0842 : FFILPSFQSESSTPSTGGFSGKETPSEDDRSQREHMGESLSLKAGGGDLLPPSPKVEK : 2040
XM_050424 : FFILPSFQSESSTPSTGGFSGKETPSEDDRSQREHMGESLSLKAGGGDLLPPSPKVEK : 1586

      *      2060      *      2080      *      2100
PCP0842 : KDPSRKKEWWENAGNKIYTMAADKTISKLMTEYKKRKQOHNLSAFPKEVKVEKKGEPLGP : 2100
XM_050424 : KDPSRKKEWWENAGNKIYTMAADKTISKLMTEYKKRKQOHNLSAFPKEVKVEKKGEPLGP : 1646

      *      2120      *      2140      *      2160
PCP0842 : RGQDSPLLQRPQHLMQGMRRHSFSAGPELLRQDKRPRSGSTGSSLSVSVRDAAEQIQAW : 2160
XM_050424 : RGQDSPLLQRPQHLMQGMRRHSFSAGPELLRQDKRPRSGSTGSSLSVSVRDAAEQIQAW : 1706

      *      2180      *      2200      *      2220
PCP0842 : TNMVLTVLNQIQILPDQTF TALQPAVFPCISQLTCHVTDIRVRQAVREWLG RVGRVYDII : 2220
XM_050424 : TNMVLTVLNQIQILPDQTF TALQPAVFPCISQLTCHVTDIRVRQAVREWLG RVGRVYDII : 1766

PCP0842 : V : 2221
XM_050424 : V : 1767

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FIG. 11C

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      *           20           *           40           *           60
PCP0405 : METGGRARTGTPQPAAPGVWRARPAGGGGGGASSWLLDGNSWLLCYGFLYLALYAQVSQS : 60
KIAA0534 : ----- : -

      *           80           *           100          *           120
PCP0405 : KPCERTGSCFSGRCVNSTCLCDPGWVGDCQHCQGRFKLTEPSGYLTGDPINYYKTKCT : 120
KIAA0534 : ----- : -

      *           140          *           160           *           180
PCP0405 : WLIEGYPNAVLRLRFNHFATECSWDHMYVYDGDSTYAPLIAVLSGLIVPEIRGNETVPEV : 180
KIAA0534 : ----- : -

      *           200          *           220           *           240
PCP0405 : VTTSGYALLHFFSDAAYNLTGFNIFYSINSCPNNCSEHGKCTTSVSVPSQVYCECDKYWK : 240
KIAA0534 : ----- : -

      *           260          *           280           *           300
PCP0405 : GEACDIPYCKANCGSPDHGYCDLTGEKLCVCNDSWQGPDCSLNVPSTESYWILPNVKPFS : 300
KIAA0534 : ----- : -

      *           320          *           340           *           360
PCP0405 : PSVGRASHKAVLHGKFMWVIGGYTFNYSSFQMVLYNLYNLESSIWNVGTSPSRG PLQRYGHSL : 360
KIAA0534 : ----- PLQRYGHSL : 9

      *           380          *           400           *           420
PCP0405 : ALYQENIFMYGGRIETNDGNVTDELWVFNHSQSWSTKTPTVLGHGQQYAVEGHSAHIME : 420
KIAA0534 : ALYQENIFMYGGRIETNDGNVTDELWVFNHSQSWSTKTPTVLGHGQQYAVEGHSAHIME : 69

      *           440          *           460           *           480
PCP0405 : LDSRDVVMIIIFGYSAIYGYTSSIQEYHISSNTWLVPEKGAIVQGGYGHSTSVYDEITKS : 480
KIAA0534 : LDSRDVVMIIIFGYSAIYGYTSSIQEYHISSNTWLVPEKGAIVQGGYGHSTSVYDEITKS : 129

      *           500          *           520           *           540
PCP0405 : IYVHGGYKALPGNKYGLVDDLYKYEVNTKTWTILKESGFARYLHSAVLINGAMLIFGGNT : 540
KIAA0534 : IYVHGGYKALPGNKYGLVDDLYKYEVNTKTWTILKESGFARYLHSAVLINGAMLIFGGNT : 189

      *           560          *           580           *           600
PCP0405 : HNDTSLSNGAKCFSAFLAYDIACDEWKILPKPNLHRDVNRFHSAVVINGSMYIFGGFS : 600
KIAA0534 : HNDTSLSNGAKCFSAFLAYDIACDEWKILPKPNLHRDVNRFHSAVVINGSMYIFGGFS : 249

      *           620          *           640           *           660
PCP0405 : SVLLNDILVYKPPNCKAFRDEELCKNAGPGIKCVWNKNHCEWESGNTNNILRAKCPPKT : 660
KIAA0534 : SVLLNDILVYKPPNCKAFRDEELCKNAGPGIKCVWNKNHCEWESGNTNNILRAKCPPKT : 309

      *           680          *           700           *           720
PCP0405 : AASDDRCYRYADCACTANTNGCQWCDKCKISANSNCMSVKNYTKCHVRNEQICNKL : 720
KIAA0534 : AASDDRCYRYADCACTANTNGCQWCDKCKISANSNCMSVKNYTKCHVRNEQICNKL : 369

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FIG. 12A

PCP0405	:	SCKSCSLNLCQWDQRQQEQCALPAHLCGEGWSHIGDACLRVNSSRENYDNAKLYCYNLS	:	780
KIAA0534	:	SCKSCSLNLCQWDQRQQEQCALPAHLCGEGWSHIGDACLRVNSSRENYDNAKLYCYNLS	:	429
PCP0405	:	GNLASLTTSKEVEFVLDEIQKYTQQKVSPWVGLRKINISYWGWEDMSPFTNTTLOWLPGE	:	840
KIAA0534	:	GNLASLTTSKEVEFVLDEIQKYTQQKVSPWVGLRKINISYWGWEDMSPFTNTTLOWLPGE	:	489
PCP0405	:	PNDSGFCAYLERAAVAGLKANPCTSMANGLVCEKPVVSPNQARPCKKPCSLRTSCSNCT	:	900
KIAA0534	:	PNDSGFCAYLERAAVAGLKANPCTSMANGLVCEKPVVSPNQARPCKKPCSLRTSCSNCT	:	549
PCP0405	:	SNGMECMWCSSTKRCVDSNAYIISFPYGQCLEWQTATCSP	:	960
KIAA0534	:	SNGMECMWCSSTKRCVDSNAYIISFPYGQCLEWQTATCSP	:	609
PCP0405	:	CNDPSNTGRGHCIEGSSRGPMKLGHHNEMVLDTNLCPKEKNYEWFSFIQCPACQCNHGS	:	1020
KIAA0534	:	CNDPSNTGRGHCIEGSSRGPMKLGHHNEMVLDTNLCPKEKNYEWFSFIQCPACQCNHGS	:	669
PCP0405	:	TCINNNVCEQCKNLTGKQCQDCMPGYGDPNTGGQCTACTCSGHANICHLHTGKCFCTT	:	1080
KIAA0534	:	TCINNNVCEQCKNLTGKQCQDCMPGYGDPNTGGQCTACTCSGHANICHLHTGKCFCTT	:	729
PCP0405	:	KGIKGDQCQLCDSENRYVGNPLRGTCYYSLLIDYQFTFSLLQEDDRHHTAINFIANPEQS	:	1140
KIAA0534	:	KGIKGDQCQLCDSENRYVGNPLRGTCYYSLLIDYQFTFSLLQEDDRHHTAINFIANPEQS	:	789
PCP0405	:	NKNLDISINASNFFNLNISWSVGSTAGTISGEETSIVSKNNIKEYRDSFSYEKFNFRSNP	:	1200
KIAA0534	:	NKNLDISINASNFFNLNITWSVGSTAGTISGEETSIVSKNNIKEYRDSFSYEKFNFRSNP	:	849
PCP0405	:	NITFYVYVSNFWSPIKIQIAFSQHNTIMDLVQFFVTFSCFLSLLVAAVVWKIKQTCWA	:	1260
KIAA0534	:	NITFYVYVSNFWSPIKIQIAFSQHNTIMDLVQFFVTFSCFLSLLVAAVVWKIKQTCWA	:	909
PCP0405	:	SRRREQLLRERQMASRPFASVDVALEVGAEQTEFLRGPLEGAPKPIAIEPCAGNRAAVL	:	1320
KIAA0534	:	SRRREQLLRERQMASRPFASVDVALEVGAEQTEFLRGPLEGAPKPIAIEPCAGNRAAVL	:	969
PCP0405	:	TVFLCLPRGSSGAPPPGQSGLAIASALIDISQQKASDSKDKTSGVRNRKHLSTRQGTCTV	:	1379
KIAA0534	:	TVFLCLPRGSSGAPPPGQSGLAIASALIDISQQKASDSKDKTSGVRNRKHLSTRQGTCTV	:	1028

FIG. 12B



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      *           20           *           40           *           60
PC0177A :                                     : 60
PC0177B :                                     : 60
PC0177C :                                     : 60
PC0177D :                                     : 60
KIAA1217 : ----- : -

      *           80           *           100          *           120
PC0177A :                                     MDRKREAFLEHLKQKYPHHASAIMGHQERLRDQTR : 120
PC0177B :                                     MDRKREAFLEHLKQKYPHHASAIMGHQERLRDQTR : 120
PC0177C :                                     MDRKREAFLEHLKQKYPHHASAIMGHQERLRDQTR : 120
PC0177D :                                     MDRKREAFLEHLKQKYPHHASAIMGHQERLRDQTR : 120
KIAA1217 : ----- MDRKREAFLEHLKQKYPHHASAIMGHQERLRDQTR : 35

      *           140          *           160          *           180
PC0177A : SPKLSHSPQPPSLGDPVEHLSETSADSLEAMSEGDAPTPFSRGSRTASLPVVRSTNQTK : 180
PC0177B : SPKLSHSPQPPSLGDPVEHLSETSADSLEAMSEGDAPTPFSRGSRTASLPVVRSTNQTK : 180
PC0177C : SPKLSHSPQPPSLGDPVEHLSETSADSLEAMSEGDAPTPFSRGSRTASLPVVRSTNQTK : 180
PC0177D : SPKLSHSPQPPSLGDPVEHLSETSADSLEAMSEGDAPTPFSRGSRTASLPVVRSTNQTK : 180
KIAA1217 : SPKLSHSPQPPSLGDPVEHLSETSADSLEAMSEGDAPTPFSRGSRTASLPVVRSTNQTK : 95

      *           200          *           220          *           240
PC0177A : ERS LGVLYLQYGD ETKQLRMPNEITSADTIRALFVSAFPQQLTMKMLESPSVAIYIKDES : 240
PC0177B : ERS LGVLYLQYGD ETKQLRMPNEITSADTIRALFVSAFPQQLTMKMLESPSVAIYIKDES : 240
PC0177C : ERS LGVLYLQYGD ETKQLRMPNEITSADTIRALFVSAFPQQLTMKMLESPSVAIYIKDES : 240
PC0177D : ERS LGVLYLQYGD ETKQLRMPNEITSADTIRALFVSAFPQQLTMKMLESPSVAIYIKDES : 240
KIAA1217 : ERS LGVLYLQYGD ETKQLRMPNEITSADTIRALFVSAFPQQLTMKMLESPSVAIYIKDES : 155

      *           260          *           280          *           300
PC0177A : RNVYYELNDVRNIQDRSLLKVYNKDPAHAFNHTPKTMNGDMRMQREL VYARGDGPGAPRP : 300
PC0177B : RNVYYELNDVRNIQDRSLLKVYNKDPAHAFNHTPKTMNGDMRMQREL VYARGDGPGAPRP : 300
PC0177C : RNVYYELNDVRNIQDRSLLKVYNKDPAHAFNHTPKTMNGDMRMQREL VYARGDGPGAPRP : 300
PC0177D : RNVYYELNDVRNIQDRSLLKVYNKDPAHAFNHTPKTMNGDMRMQREL VYARGDGPGAPRP : 300
KIAA1217 : RNVYYELNDVRNIQDRSLLKVYNKDPAHAFNHTPKTMNGDMRMQREL VYARGDGPGAPRP : 215

      *           320          *           340          *           360
PC0177A : GSTAHPPHAIPNSPPSTPVPHSMPPSPSRIPYGGTRSMVVPGNATIPRDRISSLPVS RPI : 360
PC0177B : GSTAHPPHAIPNSPPSTPVPHSMPPSPSRIPYGGTRSMVVPGNATIPRDRISSLPVS RPI : 360
PC0177C : GSTAHPPHAIPNSPPSTPVPHSMPPSPSRIPYGGTRSMVVPGNATIPRDRISSLPVS RPI : 360
PC0177D : GSTAHPPHAIPNSPPSTPVPHSMPPSPSRIPYGGTRSMVVPGNATIPRDRISSLPVS RPI : 360
KIAA1217 : GSTAHPPHAIPNSPPSTPVPHSMPPSPSRIPYGGTRSMVVPGNATIPRDRISSLPVS RPI : 275

      *           380          *           400          *           420
PC0177A : SPSPSAILERRDVKPEDMSGKNIAMYRNEGFYADPYLYHEGRMSIASSHG GHP LDVDPDH : 420
PC0177B : SPSPSAILERRDVKPEDMSGKNIAMYRNEGFYADPYLYHEGRMSIASSHG GHP LDVDPDH : 420
PC0177C : SPSPSAILERRDVKPEDMSGKNIAMYRNEGFYADPYLYHEGRMSIASSHG GHP LDVDPDH : 420
PC0177D : SPSPSAILERRDVKPEDMSGKNIAMYRNEGFYADPYLYHEGRMSIASSHG GHP LDVDPDH : 420
KIAA1217 : SPSPSAILERRDVKPEDMSGKNIAMYRNEGFYADPYLYHEGRMSIASSHG GHP LDVDPDH : 335

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FIG. 13A

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*           440           *           460           *           480
PC0177A : I I A Y H R T A I R S A S A Y C N P S M Q A E M H N E Q S L Y R Q K S R K Y P D S H L P T L G S K T P P A S P H R V S D : 480
PC0177B : I I A Y H R T A I R S A S A Y C N P S M Q A E M H N E Q S L Y R Q K S R K Y P D S H L P T L G S K T P P A S P H R V S D : 480
PC0177C : I I A Y H R T A I R S A S A Y C N P S M Q A E M H N E Q S L Y R Q K S R K Y P D S H L P T L G S K T P P A S P H R V S D : 480
PC0177D : I I A Y H R T A I R S A S A Y C N P S M Q A E M H N E Q S L Y R Q K S R K Y P D S H L P T L G S K T P P A S P H R V S D : 480
KIAA1217 : I I A Y H R T A I R S A S A Y C N P S M Q A E M H N E Q S L Y R Q K S R K Y P D S H L P T L G S K T P P A S P H R V S D : 395

*           500           *           520           *           540
PC0177A : L R M I D M H A H Y N A H G P P H T M Q P D R A S P S R Q A F K K E P G T L V Y I E K P R S A A G L S S L V D L G P P L : 540
PC0177B : L R M I D M H A H Y N A H G P P H T M Q P D R A S P S R Q A F K K E P G T L V Y I E K P R S A A G L S S L V D L G P P L : 540
PC0177C : L R M I D M H A H Y N A H G P P H T M Q P D R A S P S R Q A F K K E P G T L V Y I E K P R S A A G L S S L V D L G P P L : 540
PC0177D : L R M I D M H A H Y N A H G P P H T M Q P D R A S P S R Q A F K K E P G T L V Y I E K P R S A A G L S S L V D L G P P L : 540
KIAA1217 : L R M I D M H A H Y N A H G P P H T M Q P D R A S P S R Q A F K K E P G T L V Y I E K P R S A A G L S S L V D L G P P L : 455

*           560           *           580           *           600
PC0177A : M E K Q V F A Y S T A T I P K D R E T R E R M Q A E K Q I A S L T G L V Q S A L F K G P I T S Y S K D A S S E K M M K : 600
PC0177B : M E K Q V F A Y S T A T I P K D R E T ----- S E K M M K : 565
PC0177C : M E K Q V F A Y S T A T I P K D R E T ----- S E K M M K : 565
PC0177D : M E K Q V F A Y S T A T I P K D R E T ----- S E K M M K : 565
KIAA1217 : M E K Q V F A Y S T A T I P K D R E T R E R M Q A E K Q I A S L T G L V Q S A L F K G P I T S Y S K D A S S E K M M K : 515

*           620           *           640           *           660
PC0177A : T T A N R N H T D S A G T P H V S G G K M L S A L E S T V P P S Q P P P V G T S A I H M S L L E M R R S V A E L R L Q L : 660
PC0177B : T T A N R N H T D S A G T P H V S G G K M L S A L E S T V P P S Q P P P V G T S A I H M S L L E M R R S V A E L R L Q L : 625
PC0177C : T T A N R N H T D S A G T P H V S G G K M L S A L E S T V P P S Q P P P V G T S A I H M S L L E M R R S V A E L R L Q L : 625
PC0177D : T T A N R N H T D S A G T P H V S G G K M L S A L E S T V P P S Q P P P V G T S A I H M S L L E M R R S V A E L R L Q L : 625
KIAA1217 : T T A N R N H T D S A G T P H V S G G K M L S A L E S T V P P S Q P P P V G T S A I H M S L L E M R R S V A E L R L Q L : 575

*           680           *           700           *           720
PC0177A : Q Q M R Q L Q L Q N Q E L L R A M M K K A E L I S G K V M E T M K R L E D P V Q R Q R V L V E Q E R Q K Y L H E E E K : 720
PC0177B : Q Q M R Q L Q L Q N Q E L L R A M M K K A E L I S G K V M E T M K R L E D P V Q R Q R V L V E Q E R Q K Y L H E E E K : 685
PC0177C : Q Q M R Q L Q L Q N Q E L L R A M M K K A E L I S G K V M E T M K R L E D P V Q R Q R V L V E Q E R Q K Y L H E E E K : 685
PC0177D : Q Q M R Q L Q L Q N Q E L L R A M M K K A E L I S G K V M E T M K R L E D P V Q R Q R V L V E Q E R Q K Y L H E E E K : 685
KIAA1217 : Q Q M R Q L Q L Q N Q E L L R A M M K K A E L I S G K V M E T M K R L E D P V Q R Q R V L V E Q E R Q K Y L H E E E K : 635

*           740           *           760           *           780
PC0177A : I V K K L C E L E D F V E D L K K D S T A A S R L V T L K D V E D G A F L L R Q V G E A V A T L K G E F P T L Q N K M F : 780
PC0177B : I V K K L C E L E D F V E D L K K D S T A A S R L V T L K D V E D G A F L L R Q V G E A V A T L K G E F P T L Q N K M R : 745
PC0177C : I V K K L C E L E D F V E D L K K D S T A A S R L V T L K D V E D G A F L L R Q V G E A V A T L K G E F P T L Q N K M R : 745
PC0177D : I V K K L C E L E D F V E D L K K D S T A A S R L V T L K D V E D G A F L L R Q V G E A V A T L K G E F P T L Q N K M R : 745
KIAA1217 : I V K K L C E L E D F V E D L K K D S T A A S R L V T L K D V E D G A F L L R Q V G E A V A T L K G E F P T L Q N K M R : 695

*           800           *           820           *           840
PC0177A : A I L R I E V E A V R F L K E E P H K L D S L L K R V R S M T D V L T M L R R H V T D G L L K G T D A A Q A A Q Y M A M : 840
PC0177B : A I L R I E V E A V R F L K E E P H K L D S L L K R V R S M T D V L T M L R R H V T D G L L K G T D A A Q A A Q Y M A M : 805
PC0177C : A I L R I E V E A V R F L K E E P H K L D S L L K R V R S M T D V L T M L R R H V T D G L L K G T D A A Q A A Q Y M A M : 805
PC0177D : A I L R I E V E A V R F L K E E P H K L D S L L K R V R S M T D V L T M L R R H V T D G L L K G T D A A Q A A Q Y M A M : 805
KIAA1217 : A I L R I E V E A V R F L K E E P H K L D S L L K R V R S M T D V L T M L R R H V T D G L L K G T D A A Q A A Q Y M A M : 755

*           860           *           880           *           900
PC0177A : E K A T A A E V L K S Q E E A A H T S G Q P F H S T G A P G D A K S E V V P L S G M M V R H A Q S S P V V I Q P S Q H S : 900
PC0177B : E K A T A A E V L K S Q E E A A H T S G Q P F H S T G A P G D A K S E V V P L S G M M V R H A Q S S P V V I Q P S Q H S : 865
PC0177C : E K A T A A E V L K S Q E E A A H T S G Q P F H S T G A P G D A K S E V V P L S G M M V R H A Q S S P V V I Q P S Q H S : 865
PC0177D : E K A T A A E V L K S Q E E A A H T S G Q P F H S T G A P G D A K S E V V P L S G M M V R H A Q S S P V V I Q P S Q H S : 865
KIAA1217 : E K A T A A E V L K S Q E E A A H T S G Q P F H S T G A P G D A K S E V V P L S G M M V R H A Q S S P V V I Q P S Q H S : 815

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FIG. 13B

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          *           920           *           940           *           960
PC0177A : VALLNPAQNLPHVASSPAVPQEATSTLQMSQAPQSPQIPMNGSAMQSLFIEEIHVSNAK : 960
PC0177B : VALLNPAQNLPHVASSPAVPQEATSTLQMSQAPQSPQIPMNGSAMQSLFIEEIHVSNAK : 925
PC0177C : VALLNPAQNLPHVASSPAVPQEATSTLQMSQAPQSPQIPMNGSAMQSLFIEEIHVSNAK : 925
PC0177D : VALLNPAQNLPHVASSPAVPQEATSTLQMSQAPQSPQIPMNGSAMQSLFIEEIHVSNAK : 925
KIAA1217 : VALLNPAQNLPHVASSPAVPQEATSTLQMSQAPQSPQIPMNGSAMQSLFIEEIHVSNAK : 875

          *           980           *           1000          *           1020
PC0177A : RAVSIEKAEKKWEEKRONLDHYNGKEFEKLLIEEAQANIMKSI PNLEMPPTGGLPRGDAP : 1020
PC0177B : RAVSIEKAEKKWEEKRONLDHYNGKEFEKLLIEEAQANIMKSI PNLEMPPTGGLPRGDAP : 985
PC0177C : RAVSIEKAEKKWEEKRONLDHYNGKEFEKLLIEEAQANIMKSI PNLEMPPTGGLPRGDAP : 985
PC0177D : RAVSIEKAEKKWEEKRONLDHYNGKEFEKLLIEEAQANIMKSI PNLEMPPTGGLPRGDAP : 985
KIAA1217 : RAVSIEKAEKKWEEKRONLDHYNGKEFEKLLIEEAQANIMKSI PNLEMPPTGGLPRGDAP : 935

          *           1040          *           1060          *           1080
PC0177A : VDKVELSEDSNPSEQDLEKLGKSPPPPPPPRRSYLPGSGLTTRSGDVVYTGRENIT : 1080
PC0177B : VDKVELSEDSNPSEQDLEKLGKSPPPPPPPRRSYLPGSGLTTRSGDVVYTGRENIT : 1045
PC0177C : VDKVELSEDSNPSEQDLEKLGKSPPPPPPPRRSYLPGSGLTTRSGDVVYTGRENIT : 1045
PC0177D : VDKVELSEDSNPSEQDLEKLGKSPPPPPPPRRSYLPGSGLTTRSGDVVYTGRENIT : 1045
KIAA1217 : VDKVELSEDSNPSEQDLEKLGKSPPPPPPPRRSYLPGSGLTTRSGDVVYTGRENIT : 995

          *           1100          *           1120          *           1140
PC0177A : AKASSEDAGPSPQTRATKYPAEEPASAWTPSPPPVTTSSSKDEEEEEEGDKIMAELOAF : 1140
PC0177B : AKASSEDAGPSPQTRATKYPAEEPASAWTPSPPPVTTSSSKDEEEEEEGDKIMAELOAF : 1105
PC0177C : AKASSEDAGPSPQTRATKYPAEEPASAWTPSPPPVTTSSSKDEEEEEEGDKIMAELOAF : 1105
PC0177D : AKASSEDAGPSPQTRATKYPAEEPASAWTPSPPPVTTSSSKDEEEEEEGDKIMAELOGS : 1105
KIAA1217 : AKASSEDAGPSPQTRATKYPAEEPASAWTPSPPPVTTSSSKDEEEEEEGDKIMAELOGS : 1055

          *           1160          *           1180          *           1200
PC0177A : Q---KCSFMDVNSNSHAEPSSRADSHVKDTR----- : 1167
PC0177B : Q---KCSFMDVNSNSHAEPSSRADSHVKDTR----- : 1132
PC0177C : Q---KCSFMDVNSNSHAEPSSRADSHVKDTR----- : 1132
PC0177D : SGAPQTSRMPVPMPSAKNRPGLDKPGKQSKLQDPRQYRQANGSAKKSGGDFKPTSPSLPA : 1165
KIAA1217 : SGAPQTSRMPVPMPSAKNRPGLDKPGKQSKLQDPRQYRQANGSAKKSGGDFKPTSPSLPA : 1115

          *           1220          *           1240          *           1260
PC0177A : ----- : -
PC0177B : ----- : -
PC0177C : ----- : -
PC0177D : SKIPALSPSSGKSSSLPSSSGDSSNLPNPPATKPSIASNPLSPQTGPPAHSASLIPSVSN : 1225
KIAA1217 : SKIPALSPSSGKSSSLPSSSGDSSNLPNPPATKPSIASNPLSPQTGPPAHSASLIPSVSN : 1175

          *           1280          *           1300          *           1320
PC0177A : ----- : -
PC0177B : ----- : -
PC0177C : ----- : -
PC0177D : GSLKFQSLTHTGKGHLSFSPQSQNGRAPPLSFSSSPSPASSVSLNQAKGTRTIHTP : 1285
KIAA1217 : GSLKFQSLTHTGKGHLSFSPQSQNGRAPPLSFSSSPSPASSVSLNQAKGTRTIHTP : 1235

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FIG. 13C

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      *      1340      *      1360      *      1380
PC0177A : -----SGATVPPKEKKNLEFFHEDVRKSDVEYENGPMQEFQ : 1203
PC0177B : -----SGATVPPKEKKNLEFFHEDVRKSDVEYENGPMQEFQ : 1168
PC0177C : -----SGATVPPKEKKNLEFFHEDVRKSDVEYENGPMQEFQ : 1168
PC0177D : SLTSYKAQNGSSSKATPSTAKETS----- : 1309
KIAA1217 : SLTSYKAQNGSSSKATPSTAKETS----- : 1259

      *      1400      *      1420      *      1440
PC0177A : KVTTGAVRPSDPPKWERGMENSISDASRTSEYKTEIIMKENSISNMSLLRDSRNYSETV : 1263
PC0177B : KVTTGAVRPSDPPKWERGMENSISDASRTSEYKTEIIMKENSISNMSLLRDSRNYSETV : 1228
PC0177C : KVTTGAVRPSDPPKWERGMENSISDASRTSEYKTEIIMKENSISNMSLLRDSRNYSETV : 1228
PC0177D : ----- : -
KIAA1217 : ----- : -

      *      1460      *      1480      *      1500
PC0177A : PKASFGFSGISPLEDEINKGSKISGLQYSIPDTENQTLNYGKTKEMEKQNTDKCHVSSHT : 1323
PC0177B : PKASFGFSGISPLEDEINKGSKISGLQYSIPDTENQTLNYGKTKEMEKQNTDKCHVSSHT : 1288
PC0177C : PKASFGFSGISPLEDEINKGSKISGLQYSIPDTENQTLNYGKTKEMEKQNTDKCHVSSHT : 1288
PC0177D : ----- : -
KIAA1217 : ----- : -

      *      1520      *      1540      *      1560
PC0177A : RLTESSVHDFKTEDQEVITTTDFGQVVLRPKEARHANVNPNEGESSSSSPTEENAATDNI : 1383
PC0177B : RLTESSVHDFKTEDQEVITTTDFGQVVLRPKEARHANVNPNEGESSSSSPTEENAATDNI : 1348
PC0177C : RLTESSVHDFKTEDQEVITTTDFGQVVLRPKEARHANVNPNEGESSSSSPTEENAATDNI : 1348
PC0177D : ----- : -
KIAA1217 : ----- : -

      *      1580      *      1600      *      1620
PC0177A : AFMITETTQVLSSGEVHDIVSQKGEDIQTVNIDARKEMTPRQEGTDNEDPVVCLDKKPV : 1443
PC0177B : AFMITETTQVLSSGEVHDIVSQKGEDIQTVNIDARKEMTPRQEGTDNEDPVVCLDKKPV : 1408
PC0177C : AFMITETTQVLSSGEVHDIVSQKGEDIQTVNIDARKEMTPRQEGTDNEDPVVCLDKKPV : 1408
PC0177D : ----- : -
KIAA1217 : ----- : -

      *      1640      *      1660      *      1680
PC0177A : IIIIFDEPMDIRSAYKRLSTIFEEDDEELERMMEEEKIEEEEEENGDSVVQNNNTSQMSH : 1503
PC0177B : IIIIFDEPMDIRSAYKRLSTIFEEDDEELERMMEEEKIEEEEEENGDSVVQNNNTSQMSH : 1468
PC0177C : IIIIFDEPMDIRSAYKRLSTIFEEDDEELERMMEEEKIEEEEEENGDSVVQNNNTSQMSH : 1468
PC0177D : ----- : -
KIAA1217 : ----- : -

      *      1700      *      1720      *      1740
PC0177A : KKVAPGNLRTGQQVETKTSQPHSLATETRNPGGQEMNRTELNKFHVDSNPSECKGEDATD : 1563
PC0177B : KKVAPGNLRTGQQVETKTSQPHSLATETRNPGGQEMNRTELNKFHVDSNPSECKGEDATD : 1528
PC0177C : KKVAPGNLRTGQQVETKTSQPHSLATETRNPGGQEMNRTELNKFHVDSNPSECKGEDATD : 1528
PC0177D : ----- : -
KIAA1217 : ----- : -

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FIG. 13D

		*	1760	*	1780	*	1800	
PC0177A	:	DQFESPKKKFKFKFPKKQLAALTQAIRTGKTGKKT	LQVVVYEEEEEDGTLKQHK	EAKRF	:	1623		
PC0177B	:	DQFESPKKKFKFKFPKKQLAALTQAIRTGKTGKKT	LQVVVYEEEEEDGTLKQHK	EAKRF	:	1588		
PC0177C	:	DQFESPKKKFKFKFPKKQLAALTQAIRTGKTGKKT	LQVVVYEEEEEDGTLKQHK	EAKRF	:	1588		
PC0177D	:	-----	-----	-----	:	-		
KIAA1217	:	-----	-----	-----	:	-		

		*	1820	*	1840	*	1860	
PC0177A	:	EIARSQPEDTPENTVRRQE	QPSIESTSPISRTDEIRKNTYRT	LDSLEQTIKQLENTISEM	:	1683		
PC0177B	:	EIARSQPEDTPENTVRRQE	QPSIESTSPISRTDEIRKNTYRT	LDSLEQTIKQLENTISEM	:	1648		
PC0177C	:	EIARSQPEDTPENTVRRQE	QPSIESTSPISRTDEIRKNTYRT	LDSLEQTIKQLENTISEM	:	1648		
PC0177D	:	-----	-----	-----	:	-		
KIAA1217	:	-----	-----	-----	:	-		

		*	1880	*	1900	*	1920	
PC0177A	:	SPKALVDTSCSSNRDSVASSSHIAQEASPRLLVPDEGPTALEPPTSIPSASRK	-----	:	1737			
PC0177B	:	SPKALVDTSCSSNRDSVASSSHIAQEASPRLLVPDEGPTALEPPTSIPSASRK	-----	:	1702			
PC0177C	:	SPKALVDTSCSSNRDSVASSSHIAQEASPRLLVPDEGPTALEPPTSIPSASRK	GSSGAP	:	1708			
PC0177D	:	-----	-----	:	-			
KIAA1217	:	-----	-----	:	-			

		*	1940	*	1960	*	1980	
PC0177A	:	-----	-----	-----	-----	:	-	
PC0177B	:	-----	-----	-----	-----	:	-	
PC0177C	:	QTSRMPVPM	SAKNRPGTLDKPGKQSKLQDPRQYRQANGS	SAKKSGGDFKPTSPSLPASKIP	:	1768		
PC0177D	:	-----	-----	-----	-----	:	-	
KIAA1217	:	-----	-----	-----	-----	:	-	

		*	2000	*	2020	*	2040	
PC0177A	:	-----	-----	-----	-----	:	-	
PC0177B	:	-----	-----	-----	-----	:	-	
PC0177C	:	ALSPSSGKSSSLPSSSGDSSNLPNPPATKPSIASNPLSPQTGPPAHSASLIPSVSNGSLK	:	1828				
PC0177D	:	-----	-----	-----	-----	:	-	
KIAA1217	:	-----	-----	-----	-----	:	-	

		*	2060	*	2080	*	2100	
PC0177A	:	-----	-----	-----	-----	:	-	
PC0177B	:	-----	-----	-----	-----	:	-	
PC0177C	:	FQSLTHTGKGHLSFSPQSQNGRAPPLSFSSSPSPASSVSLNQGAKGTRTIHTPSLTS	:	1888				
PC0177D	:	-----	-----	-----	-----	:	-	
KIAA1217	:	-----	-----	-----	-----	:	-	

		*	2120	
PC0177A	:	-----VSWSAGK	:	1744
PC0177B	:	-----VSWSAGK	:	1709
PC0177C	:	YKAQNGSSSKATPSTAKETS	:	1908
PC0177D	:	-----	:	-
KIAA1217	:	-----	:	-

FIG. 13E

PCP0454	:	MNAQRLLRATK	20	*	40	*	60	
KIAA0301	:	-----						60
PCP0454	:	PVEGKGGEFAWRDGP	80	*	100	*	120	
KIAA0301	:	-----						120
PCP0454	:	SFQVQHEKTKIFGCQNPFRQGGGRKGLPR	140	*	160	*	180	
KIAA0301	:	-----						180
PCP0454	:	KNIVKKMVAFNNQIDHEVTVEKKWGQKGGPWEFNL	200	*	220	*	240	
KIAA0301	:	-----						240
PCP0454	:	FLVYGERMRTEEDKKKVI	260	*	280	*	300	
KIAA0301	:	-----						300
PCP0454	:	PSRHPLLLHQSFP	320	*	340	*	360	
KIAA0301	:	-----						360
PCP0454	:	SAMDTTELLGGFEQVDLIRPWRRLLEKVEGT	380	*	400	*	420	
KIAA0301	:	-----						420
PCP0454	:	YKPKCLGEGGKAITMEIVNKLEAVLLMQRLNNKINSYCKAEFAKLVEEFRSFGVKLTQL	440	*	460	*	480	
KIAA0301	:	-----						480
PCP0454	:	ASGSHSGTTFEWD	500	*	520	*	540	
KIAA0301	:	-----						540
PCP0454	:	DGSTPTITPNPNFRLFLSMDPVHGD	560	*	580	*	600	
KIAA0301	:	-----						600
PCP0454	:	GLVGNSVCDILLALHTETRSTVVG	620	*	640	*	660	
KIAA0301	:	-----						660
PCP0454	:	VYVCSQHSPANRKL	680	*	700	*	720	
KIAA0301	:	-----						720

FIG. 14A

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      *           740           *           760           *           780
PCP0454 : VRRDGIILVYCLNRMSMTSSWTRSQPFTLQDLEKIMQSPSPENLKFNAVEVNTYWIDEP : 780
KIAA0301 : ----- : -

      *           800           *           820           *           840
PCP0454 : DVLVMAVKLLIERATNQDWMLRVKWLHLAKNIPQGLESIQIHLEASAASLRNFYSHSLS : 840
KIAA0301 : ----- : -

      *           860           *           880           *           900
PCP0454 : GAVSNVFKILQPNTTDEFVIPLDPRWNMQALDMIRNLMDFDPQTDQPDQLFALLESAANK : 900
KIAA0301 : ----- : -

      *           920           *           940           *           960
PCP0454 : TIIYLDREKRVFTEANLVSVGSKKLRESVLRMSFEFHQDPESYHTLPHEIVVNLAFFEL : 960
KIAA0301 : ----- : -

      *           980           *          1000           *          1020
PCP0454 : CDALVLLWVQSSQGMVSDASANEILGSLRWRDRFWTVADTVKVDAPGLALLALHWHWVLK : 1020
KIAA0301 : ----- : -

      *          1040           *          1060           *          1080
PCP0454 : HLVHQIPRLLMNYEDKYYKEVQTVSEHIQNCGLSGTGGFAGIKKLQKFLGRPFPPFKDKLV : 1080
KIAA0301 : ----- : -

      *          1100           *          1120           *          1140
PCP0454 : VECFSQLKVLNKLVLAIREQMSALGESGWQEDINRLQVVASQWTLKSSLQAWGLILRANI : 1140
KIAA0301 : ----- : -

      *          1160           *          1180           *          1200
PCP0454 : LEDVSLDELKNFVHAQCLELKAQGLSLGFLEKKHDEASSLSHPDLTSVIHLTRSVQLWPA : 1200
KIAA0301 : ----- : -

      *          1220           *          1240           *          1260
PCP0454 : MEYLAMLWRYKVTADFMAQACLRRCCKNQPPQINEEISHLISFCLYHTPVTPQELRDLWS : 1260
KIAA0301 : ----- : -

      *          1280           *          1300           *          1320
PCP0454 : LLHHQKVSPEEITSLWSELFNSMFMSFWSSTVTNPEYWLMWNPLPGMQQREAPKSVLDS : 1320
KIAA0301 : ----- : -

      *          1340           *          1360           *          1380
PCP0454 : TLKGPGNLRNPIFSKCCFEVLTSSWRASPWDVSGLPILSSSHVTLGEWVERTQQLQDISS : 1380
KIAA0301 : ----- : -

      *          1400           *          1420           *          1440
PCP0454 : MLWTNMAISSVAEFRRTDSQLQGQVLFRLHLAGLAEALLPESRRQEYMQNCEQLLLGSSQAF : 1440
KIAA0301 : ----- : -

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FIG. 14B

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      *      1460      *      1480      *      1500
PCP0454 : QHVGQTLGDMAGQEVLPKELLCQLLTSLHHFVGEGESKRSLPEPAQRGSLWVSLGLLQIQ : 1500
KIAA0301 : ----- : -

      *      1520      *      1540      *      1560
PCP0454 : TWLPQARFDPVAVKREYKLNIVKEELHQLQCEWKTRNLSSQLQOTGRDLEDEVVVSYSHPHV : 1560
KIAA0301 : ----- : -

      *      1580      *      1600      *      1620
PCP0454 : RLLRQRMDRLDNLTCHLLKKQAFRPQLPAYESLVQEIHHYVTSIAKAPAVQDLLTRLLQA : 1620
KIAA0301 : ----- : -

      *      1640      *      1660      *      1680
PCP0454 : LHIDGPRSAQVAQSLIKEEASWQQSHHQFRKRLSEETFFYPDAVSPLQASILQLQHGMRL : 1680
KIAA0301 : ----- : -

      *      1700      *      1720      *      1740
PCP0454 : VASELHTSLYSSMVGADRLGTLATALLAFPSVGPTFPTYAHADTLCSVKSEEVLRGLGK : 1740
KIAA0301 : ----- : -

      *      1760      *      1780      *      1800
PCP0454 : LIILKRSGGKELEGKGQKACPTREQLLMNALLYLRSHVLCKGELDQRALQLFRHVCQEIIIS : 1800
KIAA0301 : ----- : -

      *      1820      *      1840      *      1860
PCP0454 : EWDEQERIAQEKAQESGLYRYSRNSRTALSEEEEEERFRKQFPLHEKDFADILVQPT : 1860
KIAA0301 : ----- : -

      *      1880      *      1900      *      1920
PCP0454 : LEENKGTSDGQEEAGTNPALLSQNSMQAVMLIHQQQLCLNFARSLWYQQTLPPEAKHYL : 1920
KIAA0301 : -----MLIHQQQLCLNFARSLWYQQTLPPEAKHYL : 30

      *      1940      *      1960      *      1980
PCP0454 : SLFLSCYQTGASLVTHFYPLMGVELNDRLLGSQLLACTLSHNTLFGEAPSDLMVKPDGPY : 1980
KIAA0301 : SLFLSCYQTGASLVTHFYPLMGVELNDRLLGSQLLACTLSHNTLFGEAPSDLMVKPDGPY : 90

      *      2000      *      2020      *      2040
PCP0454 : DFYQHPNVPEARQCQPVLQGFSEAVSHLLQDWPEHPALEQLLVVMDRIRSFPLSSPISKF : 2040
KIAA0301 : DFYQHPNVPEARQCQPVLQGFSEAVSHLLQDWPEHPALEQLLVVMDRIRSFPLSSPISKF : 150

      *      2060      *      2080      *      2100
PCP0454 : LNGLEILLAKAQDWEENASRALSLRKHLDLISQMIIRWRKLELNCWSMSLDNTMKRHTEK : 2100
KIAA0301 : LNGLEILLAKAQDWEENASRALSLRKHLDLISQMIIRWRKLELNCWSMSLDNTMKRHTEK : 210

      *      2120      *      2140      *      2160
PCP0454 : STKHWFSIYQMLEKHMQEQTTEEQEDDKQMTLMLLVSTLQAFIEGSSLGEFHVRLQMLLVF : 2160
KIAA0301 : STKHWFSIYQMLEKHMQEQTTEEQEDDKQMTLMLLVSTLQAFIEGSSLGEFHVRLQMLLVF : 270

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FIG. 14C



PCP0454 : HCHVLLMPQVEGKDSLCSVLWNLYHYKQFFDRVQAKIVELRSPLEKELKEFVKISKWND : 2220  
 KIAA0301 : HCHVLLMPQVEGKDSLCSVLWNLYHYKQFFDRVQAKIVELRSPLEKELKEFVKISKWND : 330

PCP0454 : VSEFWSIKQSVEKTHRTLFKFMKKFEAVLSEPCRSSLVESDKEEQPDFLPRPTDGAASELS : 2280  
 KIAA0301 : VSEFWSIKQSVEKTHRTLFKFMKKFEAVLSEPCRSSLVESDKEEQPDFLPRPTDGAASELS : 390

PCP0454 : SIQNLNRLALRETLAQAAGQATIPWCQGAAPSGLEGELLRRLPKLRKMRMKCLTFMK : 2340  
 KIAA0301 : SIQNLNRLALRETLAQAAGQATIPWCQGAAPSGLEGELLRRLPKLRKMRMKCLTFMK : 450

PCP0454 : ESPLPRLVEGLDQFTGEVISSVSELQSLKVEPSAEKEKORSEAKHILMQKQALSDLFKH : 2400  
 KIAA0301 : ESPLPRLVEGLDQFTGEVISSVSELQSLKVEPSAEKEKORSEAKHILMQKQALSDLFKH : 510

PCP0454 : LAKIGLSYRKGLAWARSKNPQEMHLHLHPLDLQSALSIVSSTQEADSRLLTEISSWDGCG : 2460  
 KIAA0301 : LAKIGLSYRKGLAWARSKNPQEMHLHLHPLDLQSALSIVSSTQEADSRLLTEISSWDGCG : 570

PCP0454 : KYFYRSLARHARLNAALATPAKEMGMGNVERCRGFSAHLMKMLVRQRRSLTTLSEQWIIIL : 2520  
 KIAA0301 : KYFYRSLARHARLNAALATPAKEMGMGNVERCRGFSAHLMKMLVRQRRSLTTLSEQWIIIL : 630

PCP0454 : RNLLSCVQEIHSLRMGPQAYPVAFPPQDGVQQWTERLQHLAMQCQILLEQLSWLLQCCPS : 2580  
 KIAA0301 : RNLLSCVQEIHSLRMGPQAYPVAFPPQDGVQQWTERLQHLAMQCQILLEQLSWLLQCCPS : 690

PCP0454 : VGPAPGHGNVQVLGQPPGPCLEGPELSKGQLCGVVLDLIPSNLSYFSPPIPGSQLPFGCRM : 2640  
 KIAA0301 : VGPAPGHGNVQVLGQPPGPCLEGPELSKGQLCGVVLDLIPSNLSYFSPPIPGSQLPFGCRM : 750

PCP0454 : RKQDHLWQQSTTRLTEMLKTIKTVKADVDKIRQQSCETLFHSHWKDFEVCSSALSCLSQVS : 2700  
 KIAA0301 : RKQDHLWQQSTTRLTEMLKTIKTVKADVDKIRQQSCETLFHSHWKDFEVCSSALSCLSQVS : 810

PCP0454 : VHLQGLSFLFILPGMEVEQRDSQMALVESLEYVRGEISKAMADFTTWKTHLLTSDSQGGN : 2760  
 KIAA0301 : VHLQGLSFLFILPGMEVEQRDSQMALVESLEYVRGEISKAMADFTTWKTHLLTSDSQGGN : 870

PCP0454 : QMLDEGFVEDFSEQMEIAIRAILCAIQNLEERKNEKAEENTDQASPOEDYAGFERLQSGH : 2820  
 KIAA0301 : QMLDEGFVEDFSEQMEIAIRAILCAIQNLEERKNEKAEENTDQASPOEDYAGFERLQSGH : 930

PCP0454 : LTKLLEDDFWADVSTLHVQKIIISAISELLERLKSYGEDGTAAKHLFFSQSCSLVRLVPV : 2880  
 KIAA0301 : LTKLLEDDFWADVSTLHVQKIIISAISELLERLKSYGEDGTAAKHLFFSQSCSLVRLVPV : 990

FIG. 14D

		*	2900	*	2920	*	2940	
PCP0454	:	LSSYSDDLVLFFLTMSLATHRSTAKLLSVLAQVFTELAQKGFCLPKFEMEDSAGEGATEFH						: 2940
KIAA0301	:	LSSYSDDLVLFFLTMSLATHRSTAKLLSVLAQVFTELAQKGFCLPKFEMEDSAGEGATEFH						: 1050
		*	2960	*	2980	*	3000	
PCP0454	:	DYEGGGIGEGEGMKDVSQIGNEEQVEDTFQKGQEKDKEDPDSKSDIKGEDNAIEMSEDF						: 3000
KIAA0301	:	DYEGGGIGEGEGMKDVSQIGNEEQVEDTFQKGQEKDKEDPDSKSDIKGEDNAIEMSEDF						: 1110
		*	3020	*	3040	*	3060	
PCP0454	:	DGKMHGGELEEQEEDDEKSDSEGGDLKMHGDLNGEADKLDERLWGDDDEEEDDEEEDN						: 3060
KIAA0301	:	DGKMHGGELEEQEEDDEKSDSEGGDLKMHGDLNGEADKLDERLWGDDDEEEDDEEEDN						: 1170
		*	3080	*	3100	*	3120	
PCP0454	:	KTEETGPGMDEEDSELVAKDDNLDSGNSNKDKSQQDKKEEKEEAEADDGGQGEDKINEQI						: 3120
KIAA0301	:	KTEETGPGMDEEDSELVAKDDNLDSGNSNKDKSQQDKKEEKEEAEADDGGQGEDKINEQI						: 1230
		*	3140	*	3160	*	3180	
PCP0454	:	DERDYDENEVDPHYHGNQEKVPEPEALDLPDDLNLDSKNGGEDTDNEEGEEENPLEIKE						: 3180
KIAA0301	:	DERDYDENEVDPHYHGNQEKVPEPEALDLPDDLNLDSKNGGEDTDNEEGEEENPLEIKE						: 1290
		*	3200	*	3220	*	3240	
PCP0454	:	KPEEAGHEAERGETETDQNESQSPQEPPEEGPSEDDKAEGEEEMDTGADDQGDGAAQHPE						: 3240
KIAA0301	:	KPEEAGHEAERGETETDQNESQSPQEPPEEGPSEDDKAEGEEEMDTGADDQGDGAAQHPE						: 1350
		*	3260	*	3280	*	3300	
PCP0454	:	EHSEEQQQSVEEKDKEADEEGGNGPADQGFQPPQEEEREDSDTEEQVPEALERKEHASC						: 3300
KIAA0301	:	EHSEEQQQSVEEKDKEADEEGGNGPADQGFQPPQEEEREDSDTEEQVPEALERKEHASC						: 1410
		*	3320	*	3340	*	3360	
PCP0454	:	GQTGVENMQNTQAMELAGAAPEKEQGKEEHGSGAADANQAEGHESNFIAQLASQKHTRKN						: 3360
KIAA0301	:	GQTGVENMQNTQAMELAGAAPEKEQGKEEHGSGAADANQAEGHESNFIAQLASQKHTRKN						: 1470
		*	3380	*	3400	*	3420	
PCP0454	:	TQSFKRKPGQADNERSMGDHNERVHKRLRTVDTDSHAEQGPQQPQAQVEDADAFEHIKQ						: 3420
KIAA0301	:	TQSFKRKPGQADNERSMGDHNERVHKRLRTVDTDSHAEQGPQQPQAQVEDADAFEHIKQ						: 1530
		*	3440	*	3460	*	3480	
PCP0454	:	GSDAYDAQTYDVASKEQQQSAKDSGKDQEEEEIEDTLMDTEEQEEFKAADVEQLKPEEIK						: 3480
KIAA0301	:	GSDAYDAQTYDVASKEQQQSAKDSGKDQEEEEIEDTLMDTEEQEEFKAADVEQLKPEEIK						: 1590
		*	3500	*	3520	*	3540	
PCP0454	:	SGTTAPLGFDEMEVEIQTVKTEEDQDPRTDKAHKETENEPERSRESTIHTAHQFLMDTI						: 3540
KIAA0301	:	SGTTAPLGFDEMEVEIQTVKTEEDQDPRTDKAHKETENEPERSRESTIHTAHQFLMDTI						: 1650
		*	3560	*	3580	*	3600	
PCP0454	:	FQPFLLKDVNELRQELERQLEMMQWPRESGNPEEEKVAAEMWQSYLILTAPLSQRLCEEELRL						: 3600
KIAA0301	:	FQPFLLKDVNELRQELERQLEMMQWPRESGNPEEEKVAAEMWQSYLILTAPLSQRLCEEELRL						: 1710

FIG. 14E

		*	3620	*	3640	*	3660	
PCP0454	:	ILEPTQAAKLKGDYRTGKRLNIRKVIPYIASQFRKDKIWLRRTKPSKRQYQICLAIDDSS						: 3660
KIAA0301	:	ILEPTQAAKLKGDYRTGKRLNIRKVIPYIASQFRKDKIWLRRTKPSKRQYQICLAIDDSS						: 1770
		*	3680	*	3700	*	3720	
PCP0454	:	SMVDNHTKQLAFESLAVIGNALTLEVGQIAVCSFGESVKLLHPPFHEQFSDYSGSQILRL						: 3720
KIAA0301	:	SMVDNHTKQLAFESLAVIGNALTLEVGQIAVCSFGESVKLLHPPFHEQFSDYSGSQILRL						: 1830
		*	3740	*	3760	*	3780	
PCP0454	:	CKFQKKTKIAQFLESVANMFAAAQQLSQNISSETAQLLLVVS DGRGLFLEGKERVLA AV						: 3780
KIAA0301	:	CKFQKKTKIAQFLESVANMFAAAQQLSQNISSETAQLLLVVS DGRGLFLEGKERVLA AV						: 1890
		*	3800	*	3820	*	3840	
PCP0454	:	QAARNANIFVIFVVLDPSSRDSILDIKVPFKGPGEMPEIRSYMEEFPPYYIILRDVN						: 3840
KIAA0301	:	QAARNANIFVIFVVLDPSSRDSILDIKVPFKGPGEMPEIRSYMEEFPPYYIILRDVN						: 1950
		*	3860					
PCP0454	:	ALPETLSDALRQWFELVTASDHP						: 3863
KIAA0301	:	ALPETLSDALRQWFELVTASDHP						: 1973

FIG. 14F

PCP0557	:	MAAAAVVVP	AEWIKNWEK	SGRGEFLHLCRILSENKSHDSSTYRDFQ	QALYELSYHVIKGN	:	60	
AF441770	:	-----					:	-
PCP0557	:	LKHEQASNVLS	DISEFREDMPSILADVFCILD	ETNCLEEKSKRDYFTQLVL	LACLYLVSD	:	120	
AF441770	:	-----					:	-
PCP0557	:	TVLKERLDPET	LESLGLIKQSQQFNQKSVKIKTKLFYKQ	QKFNLLREENEGYAKLIAELG	:	180		
AF441770	:	-----					:	-
PCP0557	:	QDLSGSITSD	LILENIKSLIGCFNLDPNRVLDVILEVF	ECRPEHDDFFISLLESYMS	MCE	:	240	
AF441770	:	-----MCE					:	3
PCP0557	:	PQTLCHILGFK	KFKFYQEPNGETPSSLYRVA	AVLLQFNLDLDDLYVHLLPADNCIMDEHK	:	300		
AF441770	:	PQTLCHILGFKKFKFYQEPNGETPSSLYRVA					:	63
PCP0557	:	REIAEAKQIVR	KLTMVVLSSEKMDEREKEKEKEEKEVEKPPDNQ	KLGLLEALLKIGDWQH	:	360		
AF441770	:	REIAEAKQIVRKLTMVVLSSEKMDEREKEKEEKEVEKPPDNQ					:	123
PCP0557	:	AQNIMDQMP	PYYAASHKLI	ALALCKLIHITIEPLYRRVGV	PKGAKGSPVNALQNKRA	:	420	
AF441770	:	AQNIMDQMPYYAASHKLI					:	183
PCP0557	:	AESFEDLR	RDVFNMF	CYLGPHLSHDPILFAKVVRIGK	SFMKEFQSDGSKQEDKEKTEVIL	:	480	
AF441770	:	AESFEDLRDVFNMFCYLGPHLSHDPILFAKVVRIGK					:	243
PCP0557	:	SCLLSITDQ	VLLPSLSLMDCNACMSEELWGMFKTFPYQHRYR	LYGQWKNETYN	SHPLLVK	:	540	
AF441770	:	SCLLSITDQVLLPSLSLMDCNACMSEELWGMFKTFPYQHRYR					:	303
PCP0557	:	VKAQTIDRAKY	IMKRLTKENVKPSGRQIGKLSH	SNPTILFDYILSQIQKYDNLITPVVDS	:	600		
AF441770	:	VKAQTIDRAKYIMKRLTKENVKPSGRQIGKLSH					:	363
PCP0557	:	LKYLTS	LNVDVLAYCII	EALANPEKERMKHDDTTISSWLQSLASFCGAVFRKYPIDLAGL	:	660		
AF441770	:	LKYLTSLNVDVLAYCII					:	423
PCP0557	:	LQYVANQLKAGK	SFDLLILKEVVQKMAGIEITEEMTNEQLEAMTGGEQLKAE	GGYFGQIR	:	720		
AF441770	:	LQYVANQLKAGKSFDLLILKEVVQKMAGIEITEEMTNEQLEAMTGGEQLKAE					:	483
PCP0557	:	NTKSSQRLK	DALLDHDALPLCLLMAQQRNGVIFQEGGEKHLKLVGKLYDQCHDTLVQF	:	780			
AF441770	:	NTKSSQRLKDALLDHDALPLCLLMAQQRNGVIFQEGGEKHLKLVGKLYDQCHDTLVQF					:	543

FIG. 15A

PCP0557	:	GGFLASNLSTEDYIKRVPSIDVLCNEFHTPHDAFFLSRPMYAHHISSEKYDELKKSEKGS	:	840
AF441770	:	GGFLASNLSTEDYIKRVPSIDVLCNEFHTPHDAFFLSRPMYAHHISSEKYDELKKSEKGS	:	603
PCP0557	:	KQQHKVHKYITSCEMVMAPVHEAVVSLHVSQVWDDISQFYATFWSLTMYDLAVPHTSYE	:	900
AF441770	:	KQQHKVHKYITSCEMVMAPVHEAVVSLHVSQVWDDISQFYATFWSLTMYDLAVPHTSYE	:	663
PCP0557	:	REVNKLKVQMKAIIDNQEMPPNKKKKKEKERCTALQDKLLEEEKQMEHVQRLQRLKLEK	:	960
AF441770	:	REVNKLKVQMKAIIDNQEMPPNKKKKKEKERCTALQDKLLEEEKQMEHVQRLQRLKLEK	:	723
PCP0557	:	DNWLLAKSTKNETITKFLQLCIFPRCIFSAIDAVYCARFVELVHQKTPNFSTLLCYDRV	:	1020
AF441770	:	DNWLLAKSTKNETITKFLQLCIFPRCIFSAIDAVYCARFVELVHQKTPNFSTLLCYDRV	:	783
PCP0557	:	FSDIIYTVASCTENEASRYGRFLCCMLETVTRWHSRATYKECEGNYPGFLTILRATGFD	:	1080
AF441770	:	FSDIIYTVASCTENEASRYGRFLCCMLETVTRWHSRATYKECEGNYPGFLTILRATGFD	:	843
PCP0557	:	GGNKADQLDYENFRHVHVKWHYKLTASVHCLETGEYTHIRNIIIVLTKILPWYPKVLNL	:	1140
AF441770	:	GGNKADQLDYENFRHVHVKWHYKLTASVHCLETGEYTHIRNIIIVLTKILPWYPKVLNL	:	903
PCP0557	:	GQALERRVHKICQEEKEKRPDIYALAMGYSGQLKSRSYMIPENEFHKKDPPPRNAVASV	:	1200
AF441770	:	GQALERRVHKICQEEKEKRPDIYALAMGYSGQLKSRSYMIPENEFHKKDPPPRNAVASV	:	963
PCP0557	:	QNGPGGGPSSSSIGSASKSDESSTEETDKSRERSQCGVKAVNKASSTPKGNSSNGNSGS	:	1260
AF441770	:	QNGPGGGPSSSSIGSASKSDESSTEETDKSRERSQCGVKAVNKASSTPKGNSSNGNSGS	:	1023
PCP0557	:	NSNKAVKENDKEKGKEKEKEKKEKTPATTEARVLGKDGKEKPKEERPKNKDEKARETKER	:	1320
AF441770	:	NSNKAVKENDKEKGKEKEKEKKEKTPATTEARVLGKDGKEKPKEERPKNKDEKARETKER	:	1083
PCP0557	:	TPKSDKEKEKEFKKEEKAKDEKFKTTVPNAESKSTQEREREKEPSRERDIAKEMKSKENVK	:	1380
AF441770	:	TPKSDKEKEKEFKKEEKAKDEKFKTTVPNAESKSTQEREREKEPSRERDIAKEMKSKENVK	:	1143
PCP0557	:	GGEKTPVSGSLKSPVPRSDIPEPEREQRRKIDTHPSPSHSSTVKDSLIELKESAKLYI	:	1440
AF441770	:	GGEKTPVSGSLKSPVPRSDIPEPEREQRRKIDTHPSPSHSSTVKDSLIELKESAKLYI	:	1203
PCP0557	:	NHTPPPLSKSKEREMDKKDLKSRERSREREKKDEKDKERKRDRHSNNDREVPPDLTKRR	:	1500
AF441770	:	NHTPPPLSKSKEREMDKKDLKSRERSREREKKDEKDKERKRDRHSNNDREVPPDLTKRR	:	1263

FIG. 15B

PCP0557 : \* 1520 \* 1540 \* 1560  
AF441770 : KEENGTMGVSKHKSESPCESPYPNKDKEKNKSKSSGKEKGSDFKSEKMDKISSGGKKE : 1560  
AF441770 : KEENGTMGVSKHKSESPCESPYPNKDKEKNKSKSSGKEKGSDFKSEKMDKISSGGKKE : 1323

PCP0557 : \* 1580 \*  
AF441770 : SRHDKEKIEKKEKRDSSGGKEEKHHKSSDKHR : 1593  
AF441770 : SRHDKEKIEKKEKRDSSGGKEEKHHKSSDKHR : 1356

FIG. 15C

```

      *      20      *      40      *      60
PCP0762 : MSGEATVLAYHAPEEQEGLLVVKVEEENYVLDQDFGLQENPWSQEVFRQKFRQFSYSDST : 60
XM_085817 : MSGEATVLAYHAPEEQEGLLVVKVEEENYVLDQDFGLQENPWSQEVFRQKFRQFSYSDST : 60

      *      80      *      100      *      120
PCP0762 : GPREALSRLRELCCQWLRPEVH--SKE--QILELLMLEQFLAILPEELQAWLREHRPENG : 116
XM_085817 : GPREALSRLRELCCQWLRPEVCMCSKECMSILELLMLEQFLAILPEELQAWLREHRQRME : 120

      *      140      *      160      *      180
PCP0762 : EEAVTMLEELEKELEPRQDDTHQEMFWQEMTSTGALKSLSLNSPVQPLENQCKTETQ : 176
XM_085817 : GNCDYAGGAGKNWRSQGTDAKCSGRK----- : 147

      *      200      *      220
PCP0762 : ESQAFQERDGVSLCHPGWSAVVQPRLTAAALNPWVRVILLPRPPE : 221
XM_085817 : ----- : -
```

FIG. 16

		*	20	*	40	*	60	
PCP0806	:	MGKKLDLSKLTDEEAQHVLEVVRDFDLRRKEEERLEALKGKIKKESKRELLSDTAHLN					:	60
AK022207	:	MGKKLDLSKLTDEEAQHVLEVVRDFDLRRKEEERLEALKGKIKKESKRELLSDTAHLN					:	60
		*	80	*	100	*	120	
PCP0806	:	ETHCARCLQPYQLLVNSKRQCLECGLETCKSCGRVHPPEEQGWICDPCHLARVVKIGSLEW					:	120
AK022207	:	ETHCARCLQPYQLLVNSKRQCLECGLETCKSCGRVHPPEEQGWICDPCHLARVVKIGSLEW					:	120
		*	140	*	160	*	180	
PCP0806	:	YYEHVKARFKRFGSAKVIRSLHGRLQGGAGPELISEERSGDSQDQDEDEGEPGSEAQAQAQ					:	180
AK022207	:	YYEHVKARFKRFGSAKVIRSLHGRLQGGAGPELISEERSGDSQDQDEDEGEPGSEAQAQAQ					:	180
		*	200	*	220	*	240	
PCP0806	:	PFGSKKKRLLSVHDFDFEGDSDSTQPGHSLHLSSVPEARDSPQSLTDESCSEKAAPHK					:	240
AK022207	:	PFGSKKKRLLSVHDFDFEGDSDSTQPGHSLHLSSVPEARDSPQSLTDESCSEKAAPHK					:	240
		*	260	*	280	*	300	
PCP0806	:	AEGLEEADTGASGCHSHPEEQPTSISPSRHGALAEPCPPGGSHRMALGTAAALGSNVIRN					:	300
AK022207	:	AEGLEEADTGASGCHSHPEEQPTSISPSRHGALAEPCPPGGSHRMALGTAAALGSNVIRN					:	300
		*	320	*	340	*	360	
PCP0806	:	EQLPLQYLADVDTSDDESIRAHVMASHHKKRRGRASSESQIFELNKHISAVECLLTYLEN					:	360
AK022207	:	EQLPLQYLADVDTSDDESIRAHVMASHHKKRRGRASSESQIFELNKHISAVECLLTYLEN					:	360
		*	380	*	400	*	420	
PCP0806	:	TVVPPLAKGLGAGVRTEADVVEEALRRKLEELTSNVSDQETSSEEEAAKDEKAEPNRDKS					:	420
AK022207	:	TVVPPLAKGLGAGVRTEADVVEEALRRKLEELTSNVSDQETSSEEEAAKDEKAEPNRDKS					:	420
		*	440	*	460	*	480	
PCP0806	:	VGPLPQADPEV-----					:	431
AK022207	:	VGPLPQADPEVGTAAHQTNRQEKSPQDPGDPVQYNRTTDEELSELEDRVAVTASEVQQAE					:	480
		*	500	*	520	*	540	
PCP0806	:	---SDIESRIAALRAAGLTVKPSGKPRRKSNIPLPRVAGKLGKRPEDPNADPSSEAKA					:	488
AK022207	:	SEVSDIESRIAALRAAGLTVKPSGKPRRKSNIPLPRVAGKLGKRPEDPNADPSSEAKA					:	540
		*	560	*	580	*	600	
PCP0806	:	MAVPYLLRRKFSNSLSQGGKDDDSFDRKSVYRGS LTQRNPNARKGMASHTFAKPVVAHQ					:	548
AK022207	:	MAVPYLLRRKFSNSLSQGGKDDDSFDRKSVYRGS LTQRNPNARKGMASHTFAKPVVAHQ					:	600

FIG. 17



		*	20	*	40	*	60	
XM_033473	:	MSRRK	Q	R	K	P	Q	L
AK001276	:	MSRRK	Q	R	K	P	Q	L
PCP0815A	:	MAHES	E	R	S	-S	R	L
PCP0815C	:	MAHES	E	R	S	-S	R	L

		*	80	*	100	*	120	
XM_033473	:	PVMVI	I	G	G	Q	E	N
AK001276	:	PVMVI	I	G	G	Q	E	N
PCP0815A	:	PVMVI	I	G	G	Q	E	N
PCP0815C	:	PVMVI	I	G	G	Q	E	N

		*	140	*	160	*	180	
XM_033473	:	SSGHF	L	V	A	A	T	G
AK001276	:	SSGHF	L	V	A	A	T	G
PCP0815A	:	SSGHF	L	V	A	A	T	G
PCP0815C	:	SSGHF	L	V	A	A	T	G

		*	200	*	220	*	240	
XM_033473	:	LILEE	L	R	V	L	Q	R
AK001276	:	LILEE	L	R	V	L	Q	R
PCP0815A	:	LILEE	L	R	V	L	Q	R
PCP0815C	:	LILEE	L	R	V	L	Q	R

		*	260	*	280	*	300	
XM_033473	:	LFSPK	P	V	Q	T	S	K
AK001276	:	LFSPK	P	V	Q	T	S	K
PCP0815A	:	LFSPK	P	V	Q	T	S	K
PCP0815C	:	LFSPK	P	V	Q	T	S	K

		*	320	*	340	*	360	
XM_033473	:	APSPAL	P	G	S	T	D	Q
AK001276	:	APSPAL	P	G	S	T	D	Q
PCP0815A	:	APSPAL	P	G	S	T	D	Q
PCP0815C	:	APSPAL	P	G	S	T	D	Q

		*	380	*	400	*	420	
XM_033473	:	EVMGP	L	E	K	P	G	G
AK001276	:	EVMGP	L	E	K	P	G	G
PCP0815A	:	EVMGP	L	E	K	P	G	G
PCP0815C	:	EVMGP	L	E	K	P	G	G

		*	440	*	460	*	480	
XM_033473	:	HRHRE	K	Y	P	H	V	Q
AK001276	:	HRHRE	K	Y	P	H	V	Q
PCP0815A	:	HRHRE	K	Y	P	H	V	Q
PCP0815C	:	HRHRE	K	Y	P	H	V	Q

FIG. 18A

		*	500	*	520	*	540	
XM_033473	:	TTALSATESL	TLLSTSAGTATAPGLPAFNKFVLMKAVEPKNKADENTPPGSEGS	SAISGVA	:	540		
AK001276	:	-----	-----	-----	-----	-----		
PCP0815A	:	TTALSATESL	TLLSTSAGTATAPGLPAFNKFVLMKAVEPKNKADENTPPGSEGS	SAISGVA	:	538		
PCP0815C	:	-----	-----	-----	-----	-----		
		*	560	*	580	*	600	
XM_033473	:	ESSTATRMQLSKLVTSLPSWALLTNHFKSTGSFFFPYVLEPLGASPSETSKLQQLVEKID	:	600				
AK001276	:	-----	-----	-----	-----	-----		
PCP0815A	:	ESSTATRMQLSKLVTSLPSWALLTNHFKSTGSFFFPYVLEPLGASPSETSKLQQLVEKID	:	598				
PCP0815C	:	-----	-----	-----	-----	-----		
		*	620	*	640	*	660	
XM_033473	:	RQGAVAVTSAASGAPTTAPAPSSSASSGPNQCVICLRVLS	CPRALRLHYGQHGGGERPFK	:	660			
AK001276	:	-----	-----	-----	-----	-----		
PCP0815A	:	RQGAVAVTSAASGAPTTAPAPSSSASSGPNQCVICLRVLS	CPRALRLHYGQHGGGERPFK	:	658			
PCP0815C	:	-----	-----	-----	-----	-----		
		*	680	*	700	*	720	
XM_033473	:	CKVCGRAFSTRGNLRAHFVGHKASPAARAQNSCPICQKKFTNAVTLQQHVRMHLGGQIPN	:	720				
AK001276	:	-----	-----	-----	-----	-----		
PCP0815A	:	CKVCGRAFSTRGNLRAHFVGHKASPAARAQNSCPICQKKFTNAVTLQQHVRMHLGGQIPN	:	718				
PCP0815C	:	-----	-----	-----	-----	-----		
		*	740	*	760	*	780	
XM_033473	:	GGTALPEGGGAAQENGSEQSTVSGARSFPQQSQQPSPEEELSEEEEEDEEEEEEDVTDE	:	780				
AK001276	:	-----	-----	-----	-----	-----		
PCP0815A	:	GGTALPEGGGAAQENGSEQSTVSGAGSFPQQSQQPSPEEELSEEEEEDEEEEEEDVTDE	:	778				
PCP0815C	:	-----	-----	-----	-----	-----		
		*	800	*	820	*	840	
XM_033473	:	DSLARGSESGGEKAISVRGDSEEASGAEEVGTVAATAATAGKEMDSNEKT	TQSSSLPPP	:	840			
AK001276	:	-----	-----	-----	-----	-----		
PCP0815A	:	DSLARGSESGGEKAISVRGDSEEASGAEEVGTVAATAATAGKEMDSNEKT	TQSSSLPPP	:	838			
PCP0815C	:	-----	-----	-----	-----	-----		
		*	860	*	880	*	900	
XM_033473	:	PPPDSDLQQPMEQGSSGVLGGKEEGGKPERSSSPASALTPEGEATSVTLVEELSLQEAM	:	900				
AK001276	:	-----	-----	-----	-----	-----		
PCP0815A	:	PPPDSDLQQPMEQGSSGVLGGKEEGGKPERSSSPASALTPEGEATSVTLVEELSLQEAM	:	898				
PCP0815C	:	-----	-----	-----	-----	-----		
		*	920	*	940	*	960	
XM_033473	:	RKEPGESSSRKACEVCGQAFPSQAALAEHQKTHPKEGPLFTCVFCRQGF	LERATLKKHML	:	960			
AK001276	:	-----	-----	-----	-----	-----		
PCP0815A	:	RKEPGESSSRKACEVCGQAFPSQAALAEHQKTHPKEGPLFTCVFCRQGF	LERATLKKHML	:	958			
PCP0815C	:	-----	-----	-----	-----	-----		

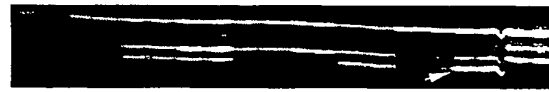
FIG. 18B

```

      *           980           *           1000           *           1020
XM_033473 : LAHHQVQPFAPHGPONIAALSLVPGCSPSTTSTGLSPFFPRKDDFTIP----- : 1007
AK001276  : -----EPVCGIPVKWPAHEALEFQLHLHYHSPKPGPTSAVWPRNCGWEGASNNGIQ : 180
PCP0815A  : LAHHQVQPFAPHGPONIAALSLVPGCSPSTTSTGLSPFFPRKDDFTIP----- : 1005
PCP0815C  : -----EPVCGIPVKWPAHEALEFQLHLHYHSPKPGPTSAVWPRNCGWEGASNNGIQ : 178

      *           1040
XM_033473 : ----- : -
AK001276  : GSQGEDSPPPISASCTQGSA : 200
PCP0815A  : ----- : -
PCP0815C  : GSQGEDSPPPISASCTQGSA : 198
```

FIG. 18C



PCP0405



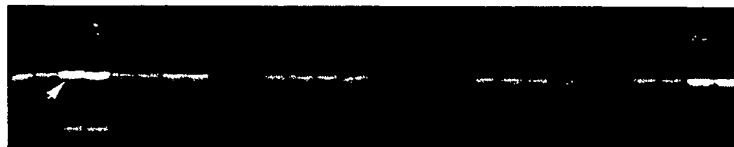
PCP0459



PCP0557



PCP0664



PCP762



PCP0806



PCP0815

FIG 19

AF239045	:	MSVLI	QQSVINYVEEENI	PALKALLEKCKDVDERNECGQTPLMLAAEQGNVEIVKELLK	:	59
AF313464	:	MSVLI	QQSVINYVEEENI	PALKALLEKCKDVDERNECGQTPLMLAAEQGNVEIVKELLK	:	59
PC473	:	MSVLI	QQSVINYVEEENI	PALKALLEKCKDVDERNECGQTPLMLAAEQGNLEIVKELIK	:	59
AB033076	:	MSVLI	QQSVINYVEEENI	PALKALLEKCKDVDERNECGQTPLMLAAEQGNLEIVKELIK	:	59
XM_045362	:	MSVLI	QQSVINYVEEENI	PALKALLEKCKDVDERNECGQTPLMLAAEQGNLEIVKELIK	:	59
AF239045	:	NGANCN	LEDLDNMTALI	SASKEGHIHIVEELLKSGAS	:	118
AF313464	:	NGANCN	LEDLDNMTALI	SASKEGHIHIVEELLKSGAS	:	118
PC473	:	NGANCN	LEDLDNMTALI	SASKEGHVHIVEELLKCGVN	:	118
AB033076	:	NGANCN	LEDLDNMTALI	SASKEGHVHIVEELLKCGVN	:	118
XM_045362	:	NGANCN	LEDLDNMTALI	SASKEGHVHIVEELLKCGVN	:	118
AF239045	:	WVELLS	HGANPSVTGL	YSVYPLIIMAAAGRGHADI	:	176
AF313464	:	WVELLS	HGANPSVTGL	YSVYPLIIMAAAGRGHADI	:	177
PC473	:	WVELLS	HGANPSVTGL	YSVYPLIIMAAAGRGHADI	:	177
AB033076	:	WVELLS	HGANPSVTGL	YSVYPLIIMAAAGRGHADI	:	176
XM_045362	:	WVELLS	HGANPSVTGL	YSVYPLIIMAAAGRGHADI	:	176
AF239045	:	AARKGH	LECVRKHL	LAMGADV	:	235
AF313464	:	AARKGH	LECVRKHL	LAMGADV	:	236
PC473	:	AARKGH	LECVRKHL	LAMGADV	:	236
AB033076	:	AARKGH	LECVRKHL	LAMGADV	:	235
XM_045362	:	AARKGH	LECVRKHL	LAMGADV	:	235

FIG 20A

AF239045	:	GNTALMTASKEGHI	*	240	*	260	*	280	*	294
AF313464	:	GNTALMTASKEGHI	*	240	*	260	*	280	*	295
PC473	:	GNTALMTASKEGHT	*	240	*	260	*	280	*	295
AB033076	:	GNTALMTASKEGHT	*	240	*	260	*	280	*	294
XM_045362	:	GNTALMTASKEGHT	*	240	*	260	*	280	*	294
AF239045	:	IDIRGQDNKKTALY	*	300	*	320	*	340	*	353
AF313464	:	IDIRGQDNKKTALY	*	300	*	320	*	340	*	354
PC473	:	IDIRGQDNKKTALY	*	300	*	320	*	340	*	354
AB033076	:	IDIRGQDNKKTALY	*	300	*	320	*	340	*	353
XM_045362	:	IDIRGQDNKKTALY	*	300	*	320	*	340	*	353
AF239045	:	LLDKGAKVSAVDKKGDT	*	360	*	380	*	400	*	412
AF313464	:	LLDKGAKVSAVDKKGDT	*	360	*	380	*	400	*	413
PC473	:	LLDKGAKVSAVDKKGDT	*	360	*	380	*	400	*	413
AB033076	:	LLDKGAKVSAVDKKGDT	*	360	*	380	*	400	*	412
XM_045362	:	LLDKGAKVSAVDKKGDT	*	360	*	380	*	400	*	412
AF239045	:	SHOKSILTQIFGARHLS	*	420	*	440	*	460	*	471
AF313464	:	SHOKSILTQIFGARHLS	*	420	*	440	*	460	*	472
PC473	:	SHOKSILTQIFGARHLS	*	420	*	440	*	460	*	472
AB033076	:	SHOKSILTQIFGARHLS	*	420	*	440	*	460	*	471
XM_045362	:	SHOKSILTQIFGARHLS	*	420	*	440	*	460	*	471

FIG 20B

AF239045	:	KSFLLKKLEDEMKTFAAGQQTEPLFQFSWLLIVFLTLLCCGGLGLVFAFVDTNMLAIAISL	:	530
AF313464	:	KSFLLKKLEDEMKTFAAGQQTEPLFQFSWLLIVFLTLLCCGGLGLVFAFVDTNMLAIAISL	:	531
PC473	:	KSFLLKKLEDEMKTFAAGQQTEPLFQFSWLLIVFLTLLCCGGLGLVFAFVHPNMLGIAVSL	:	531
AB033076	:	KSFLLKKLEDEMKTFAAGQQTEPLFQFSWLLIVFLTLLCCGGLGLVFAFVHPNMLGIAVSL	:	530
XM_045362	:	KSFLLKKLEDEMKTFAAGQQTEPLFQFSWLLIVFLTLLCCGGLGLVFAFVHPNMLGIAVSL	:	530
AF239045	:	SFLALIYIYIFFIYIFGGRREGESMNWAMALSTRLARHIGYLELLEIKLMFVNPPPELPEQT	:	589
AF313464	:	SFLALIYIYIFFIYIFGGRREGESMNWAMALSTRLARHIGYLELLEIKLMFVNPPPELPEQT	:	590
PC473	:	SFLALIYIYIFFIYIFGGRREGESMNWAMALSTRLARHIGYLELLEIKLMFVNPPPELPEQT	:	590
AB033076	:	SFLALIYIYIFFIYIFGGRREGESMNWAMALSTRLARHIGYLELLEIKLMFVNPPPELPEQT	:	589
XM_045362	:	SFLALIYIYIFFIYIFGGRREGESMNWAMALSTRLARHIGYLELLEIKLMFVNPPPELPEQT	:	589
AF239045	:	TKALPVRELEFTDYNRLSSVGGETSLAEMIATLSDACEREFGLATRLFRVFERTEESQCK	:	648
AF313464	:	TKALPVRELEFTDYNRLSSVGGETSLAEMIATLSDACEREFGLATRLFRVFERTEESQCK	:	649
PC473	:	TKALPVRELEFTDYNRLSSVGGETSLAEMIATLSDACEREFGLATRLFRVFERTEESQCK	:	649
AB033076	:	TKALPVRELEFTDYNRLSSVGGETSLAEMIATLSDACEREFGLATRLFRVFERTEESQCK	:	648
XM_045362	:	TKALPVRELEFTDYNRLSSVGGETSLAEMIATLSDACEREFGLATRLFRVFERTEESQCK	:	648
AF239045	:	KKWKKTCCLPSEVIFLEFIIVGCIISGITLLAIFRVDPKHLTVNAVLISIASVWGLAFVLM	:	707
AF313464	:	KKWKKTCCLPSEVIFLEFIIVGCIISGITLLAIFRVDPKHLTVNAVLISIASVWGLAFVLM	:	708
PC473	:	KKWKKTCCLPSEVIFLEFIIVGCIISGITLLAIFRVDPKHLTVNAVLISIASVWGLAFVLM	:	708
AB033076	:	KKWKKTCCLPSEVIFLEFIIVGCIISGITLLAIFRVDPKHLTVNAVLISIASVWGLAFVLM	:	707
XM_045362	:	KKWKKTCCLPSEVIFLEFIIVGCIISGITLLAIFRVDPKHLTVNAVLISIASVWGLAFVLM	:	707

FIG 20C

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AF239045	:	CRTMMQVLD	SLNSQRKRLHS	AASKLHK	KLKSEG	FWKVLKCE	VELMARM	AKTID	SFTQ	NQ	:	766
AF313464	:	CRTMMQVLD	SLNSQRKRLHS	AASKLHK	KLKSEG	FWKVLKCE	VELMARM	AKTID	SFTQ	NQ	:	767
PC473	:	CRTMMQVLD	SLNSQRKRLHS	AASKLHK	KLKSEG	FWKVLKCE	VELMARM	AKTID	SFTQ	NQ	:	767
AB033076	:	CRTMMQVLD	SLNSQRKRLHS	AASKLHK	KLKSEG	FWKVLKCE	VELMARM	AKTID	SFTQ	NQ	:	766
XM_045362	:	CRTMMQVLD	SLNSQRKRLHS	AASKLHK	KLKSEG	FWKVLKCE	VELMARM	AKTID	SFTQ	NQ	:	766
AF239045	:	TRLVVIID	GLDACE	QDKVLQ	MLDTR	VRVLF	SKGPF	IAIFAS	DPHII	IKAINQ	NLNSV	LRD
AF313464	:	TRLVVIID	GLDACE	QDKVLQ	MLDTR	VRVLF	SKGPF	IAIFAS	DPHII	IKAINQ	NLNSV	LRD
PC473	:	TRLVVIID	GLDACE	QDKVLQ	MLDTR	VRVLF	SKGPF	IAIFAS	DPHII	IKAINQ	NLNSV	LRD
AB033076	:	TRLVVIID	GLDACE	QDKVLQ	MLDTR	VRVLF	SKGPF	IAIFAS	DPHII	IKAINQ	NLNSV	LRD
XM_045362	:	TRLVVIID	GLDACE	QDKVLQ	MLDTR	VRVLF	SKGPF	IAIFAS	DPHII	IKAINQ	NLNSV	LRD
AF239045	:	SNINGHDY	MRNIVH	LPVFLNS	RGLSN	ARKFLV	TSATN	GDIT	CS	DDTT	GTQED	TDRRV
AF313464	:	SNINGHDY	MRNIVH	LPVFLNS	RGLSN	ARKFLV	TSATN	GDIT	CS	DDTT	GTQED	TDRRV
PC473	:	SNINGHDY	MRNIVH	LPVFLNS	RGLSN	ARKFLV	TSATN	GDIT	CS	DDTT	GTQED	TDRRV
AB033076	:	SNINGHDY	MRNIVH	LPVFLNS	RGLSN	ARKFLV	TSATN	GDIT	CS	DDTT	GTQED	TDRRV
XM_045362	:	SNINGHDY	MRNIVH	LPVFLNS	RGLSN	ARKFLV	TSATN	GDIT	CS	DDTT	GTQED	TDRRV
AF239045	:	SLGEMTK	LGSKT	ALNRRD	TYRRRQ	MQRTIT	ROMSE	FDLTK	LLVTE	DMFSD	IS	PQTM
AF313464	:	SLGEMTK	LGSKT	ALNRRD	TYRRRQ	MQRTIT	ROMSE	FDLTK	LLVTE	DMFSD	IS	PQTM
PC473	:	SLGEMTK	LGSKT	ALNRRD	TYRRRQ	MQRTIT	ROMSE	FDLTK	LLVTE	DMFSD	IS	PQTM
AB033076	:	SLGEMTK	LGSKT	ALNRRD	TYRRRQ	MQRTIT	ROMSE	FDLTK	LLVTE	DMFSD	IS	PQTM
XM_045362	:	SLGEMTK	LGSKT	ALNRRD	TYRRRQ	MQRTIT	ROMSE	FDLTK	LLVTE	DMFSD	IS	PQTM

FIG 20D



AF239045	:	NIVSVTGRLLRANQITFNWDRLASMINLTEQMPYRTSMILLYLEETEGLPDQMTLTKTIY	:	1000
AF313464	:	NIVSVTGRLLRANQITFNWDRLASMINLTEQMPYRTSMILLYLEETEGLPDQMTLTKTIY	:	1002
PC473	:	NIVSVTGRLLRANQISFNWDRLASMINLTEQMPYRTSMILLYLEETEGLPDQMTLTKTIY	:	1003
AB033076	:	NIVSVTGRLLRANQISFNWDRLASMINLTEQMPYRTSMILLYLEETEGLPDQMTLTKTIY	:	1003
XM_045362	:	NIVSVTGRLLRANQISFNWDRLASMINLTEQMPYRTSMILLYLEETEGLPDQMTLTKTIY	:	1002
	:	NIVSVTGRLLRANQISFNWDRLASMINLTEQMPYRTSMILLYLEETEGLPDQMTLTKTIY	:	1002
AF239045	:	ERISKNIPPTTKDVEPILLEIDGDIRNFEVEFLSSRTPVLVARDVKTELPCTVNLDPKLEI	:	1060
AF313464	:	ERISKNIPPTTKDVEPILLEIDGDIRNFEVEFLSSRTPVLVARDVKTELPCTVNLDPKLEI	:	1061
PC473	:	ERISKNIPPTTKDVEPILLEIDGDIRNFEVEFLSSRTPVLVARDVKTELPCTVNLDPKLEI	:	1062
AB033076	:	ERISKNIPPTTKDVEPILLEIDGDIRNFEVEFLSSRTPVLVARDVKTELPCTVNLDPKLEI	:	1062
XM_045362	:	ERISKNIPPTTKDVEPILLEIDGDIRNFEVEFLSSRTPVLVARDVKTELPCTVNLDPKLEI	:	1061
	:	ERISKNIPPTTKDVEPILLEIDGDIRNFEVEFLSSRTPVLVARDVKTELPCTVNLDPKLEI	:	1061
AF239045	:	IADVRAAREQINIGGLAYPPLPLHEGPPRPESGYSQPAASVCSASAENGPEPAGGVVSPQP	:	1120
AF313464	:	IADVRAAREQINIGGLAYPPLPLHEGPPRPESGYSQPAASVCSASAENGPEPAGGVVSPQP	:	1120
PC473	:	IADVRAAREQISIGGLAYPPLPLHEGPPRAPESGYSQPPSVCSSTSENGPEPAGGVVSPQP	:	1121
AB033076	:	IADVRAAREQISIGGLAYPPLPLHEGPPRAPESGYSQPPSVCSSTSENGPEPAGGVVSPQP	:	1121
XM_045362	:	IADVRAAREQISIGGLAYPPLPLHEGPPRAPESGYSQPPSVCSSTSENGPEPAGGVVSPQP	:	1120
	:	IADVRAAREQISIGGLAYPPLPLHEGPPRAPESGYSQPPSVCSSTSENGPEPAGGVVSPQP	:	1120
AF239045	:	HSSYYSGLSGPGQHPFYNRPFAPYLYTPRYYPGGSQHLSRSSVKTSLPRDQNGLPD	:	1179
AF313464	:	HSSYYSGLSGPGQHPFYNRPFAPYLYTPRYYPGGSQHLSRSSVKTSLPRDQNGLPD	:	1179
PC473	:	HSSYYSGMTGPGQHPFYNRPFAPYLYTPRYYPGGSQHLSRSSVKTSLPRDQNGLEV	:	1138
AB033076	:	HSSYYSGMTGPGQHPFYNRPFAPYLYTPRYYPGGSQHLSRSSVKTSLPRDQNGLEV	:	1138
XM_045362	:	HSSYYSGMTGPGQHPFYNRPFAPYLYTPRYYPGGSQHLSRSSVKTSLPRDQNGLVSY	:	1179

FIG 20E

	360	*	1380	*	1400	*	
AF239045	:						1407
AF313464	:						1359
PC473	:						1359
AB033076	:						1415
XM 045362	:						-

**FIG 20F**

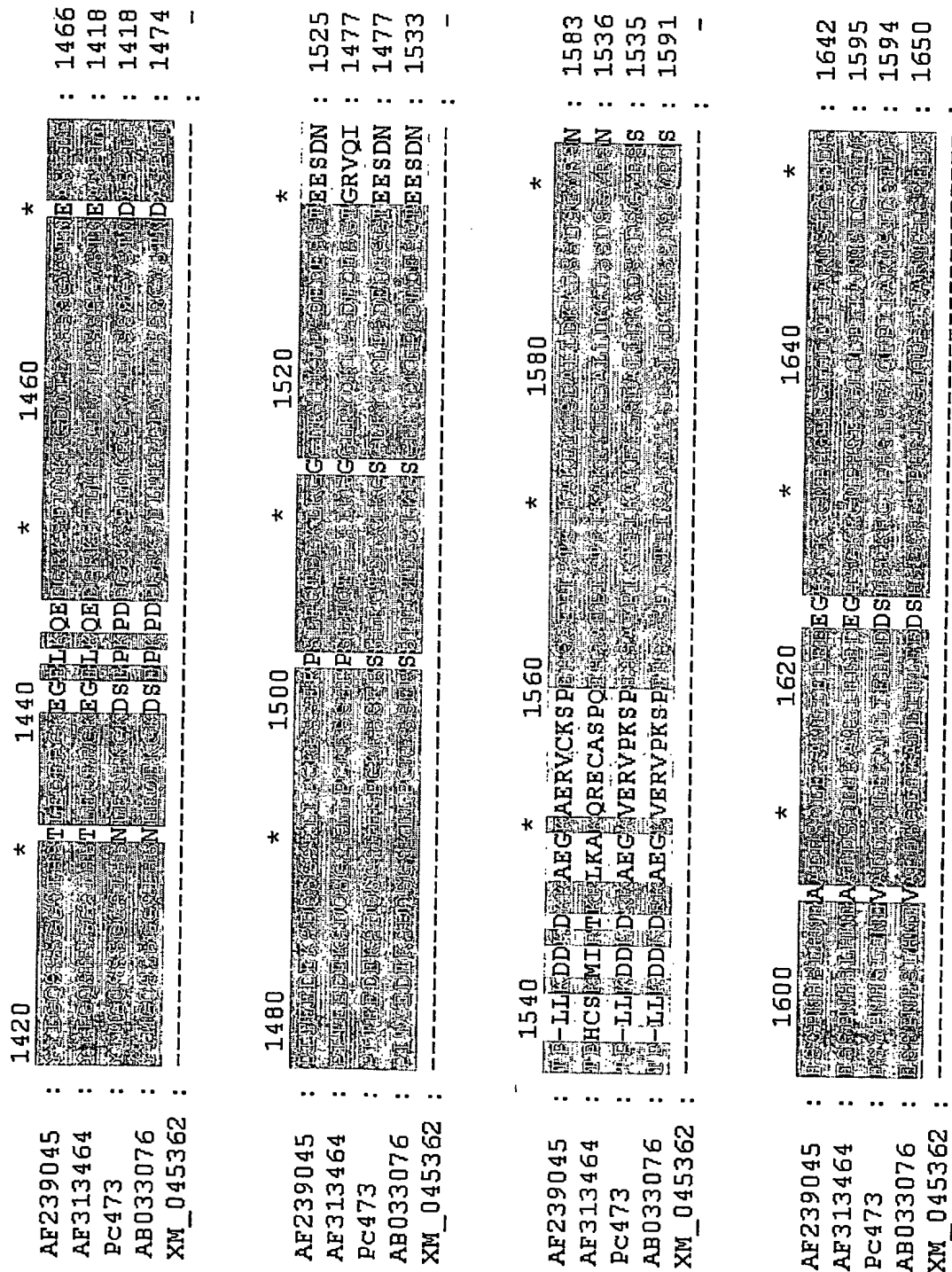


FIG 20G

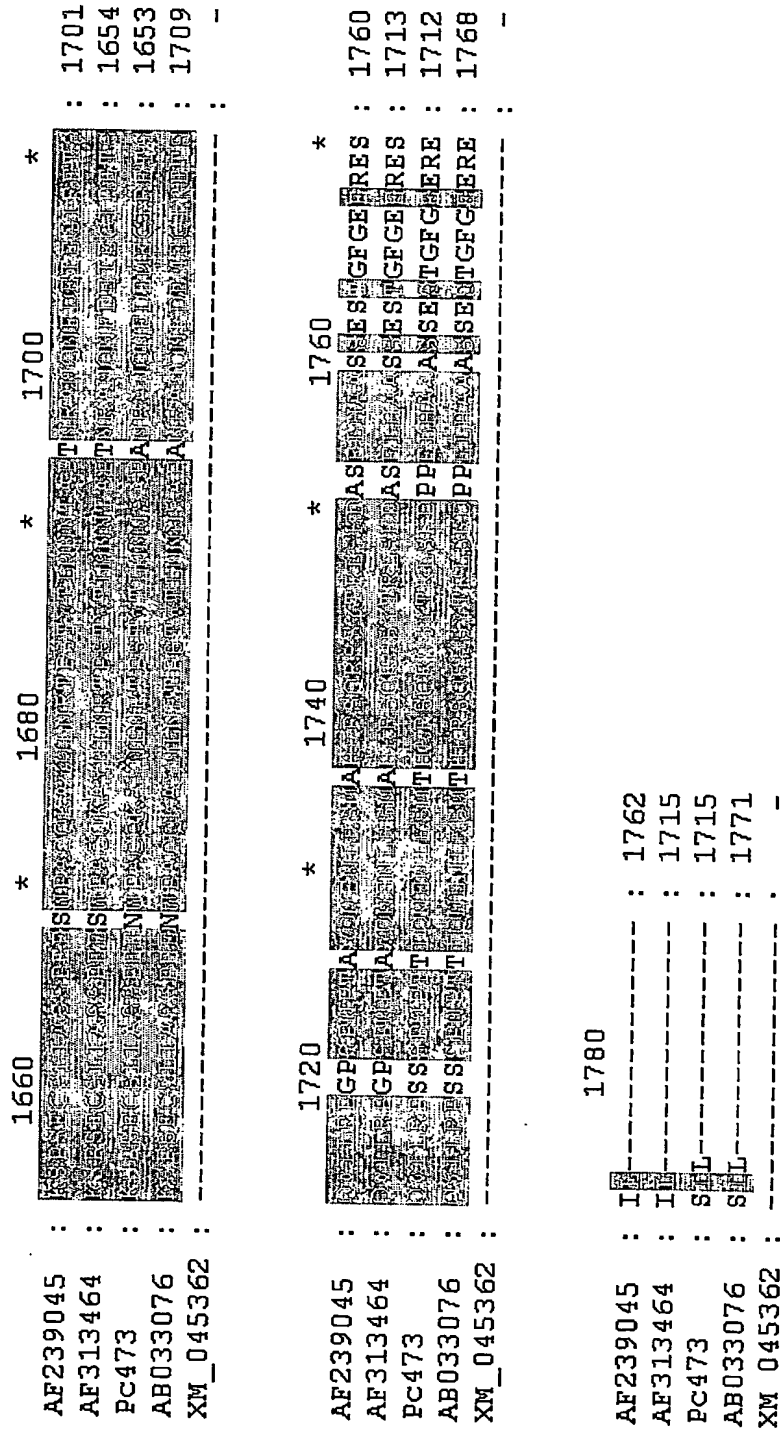


FIG 20H

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BCU1041 : * 20 * 40 * 60
AK_014463 : P : 60
XM_058887 : S : 60
----- : -

BCU1041 : * 80 * 100 * 120
AK_014463 : A - A : 119
XM_058887 : S G V : 120
----- : -

BCU1041 : * 140 * 160 * 180
AK_014463 : - V S P : 178
XM_058887 : : 180
----- : -

BCU1041 : * 200 * 220 * 240
AK_014463 : : 238
XM_058887 : : 240
----- : -

BCU1041 : * 260 * 280 * 300
AK_014463 : MERRMQLVKKDNEKERHKL QGYE EEEEE ELSE : 298
XM_058887 : MERRMQLVKKRDNEKERHKL QGYE PEEREEAEELSE : 300
MERRMQLVKKDNEKERHKL QGYE EEEEE ELSE : 35

BCU1041 : * 320 * 340 * 360
AK_014463 : KIKLE QPEL ETSQ LP KPFSCGRSGKGHKRKS PFG TERK PVKKLAPEFSKVTKT : 358
XM_058887 : KIKLE QPEL ETSQ LP KPFSCGRSGKGHKRKS PFG TERK PVKKLAPEFSKVTKT : 360
KIKLE QPEL ETSQ LP KPFSCGRSGKGHKRKS PFG TERK PVKKLAPEFSKVTKT : 95

BCU1041 : * 380 * 400 * 420
AK_014463 : PKHSPIKEEPCGSLSETVCKRELRSQETPEKPRSSVDTPPRLSTPQKGPSTHPKEKAFSS : 418
XM_058887 : PKHSPIKEEPCGSISETVCKRELRSQETPEKPRSSVDTPPRLSTPQKGPSTHPKEKAFSS : 420
PKHSPIKEEPCGSLSETVCKRELRSQETPEKPRSSVDTPPRLSTPQKGPSTHPKEKAFSS : 155

BCU1041 : * 440 * 460 * 480
AK_014463 : EIEDLPYLSTTEMYLCRWHQPPPSPLPLRESSPKKEETVA : 478
XM_058887 : EIEDLPYLSTTEMYLCRWHQPPPSPLPLRESSPKKEETVA : 480
EIEDLPYLSTTEMYLCRWHQPPPSPLPLRESSPKKEETVASKA----- : 198

BCU1041 : * 500 * 520 * 540
AK_014463 : : 538
XM_058887 : : 540
----- : -

BCU1041 : * 560 * 580 * 600
AK_014463 : : 598
XM_058887 : T A : 600
----- : -

BCU1041 : * 620 * 640 * 660
AK_014463 : Q : 614
XM_058887 : H : 616
----- : -

```

FIG 21

60  
60  
60

HUMAN : MGVIQIQLVVTVMASVMQKIIPHYSLARWLLCNGSLRWYQHPTEEELRILAGKQKQKGT : 60  
BCU0399BF : MGVIQIQLVVTVMASVMQKIIPHYSLARWLLCNGSLRWYQHPTEEELRILAGKQKQKGT : 60  
MONKEY : ----- : 60

HUMAN : KKDRKYNHIESKPLTIPKDIDLHLETKSVTEVDTLALHYFPEYQWLVDFTVAATVVYLV : 120  
BCU0399BF : KKDRKYNHIESKPLTIPKDIDLHLETKSVTEVDTLALHYFPEYQWLVDFTVAATVVYLV : 120  
MONKEY : ----- : -

HUMAN : TEVYYNFMKPTQEMNISLVWCLLVLSFAIRRW----- : 153  
BCU0399BF : TEVYYNFMKPTQEMNISLVWCLLVLSFAIKVLFSLTTHYFKVEDGGERSVCVTFGFFFFV : 180  
MONKEY : -----MKPTQEMNISLVWCLLVLSFAIKVLFSLTTHYFKVEDGGERSVCVTFGFFFFV : 53

HUMAN : ----- : -  
BCU0399BF : KAMAVLIVTENYLEFGLETGFTNPSDSAMQFLEKQGLSQSPVSKLTFKFFLAIFCSFIS : 240  
MONKEY : KAMAVLIVTENYLEFGLETGFTNPSDSAMQFLEKQGLSQSPVSKLTFKFFLAIFCSLIG : 113

HUMAN : ----- : -  
BCU0399BF : AFLTFPGLRLAQMHLDALNLATEKITQTLLHINFLAPLFMVLLWVKPITKDYIMNPPLGK : 300  
MONKEY : AFLTFPGLRLAQMHLDALNLATEKITQTLLHINFLAPLFMVLLWVKPITKDYIMNPPLGK : 173

HUMAN : ----- : -  
BCU0399BF : ESIPLMTEATFDTLRLWLIILLCALRLAMMRSHLQAYLNLAQKQVDQMKKEAGRISTVEL : 360  
MONKEY : ESIPLMTEATFDTLRLWLIILLCALRLAMMRSHLQAYLNLAQKQVDQMKKEAGRISTVEL : 233

HUMAN : ----- : -  
BCU0399BF : QKMVARVFYYLCVIALQYVAPLVMLLHTTLLKTLGNHWSGTYPESISTLPVDNSLLSNS : 420  
MONKEY : QKMVARVFYYLCVIALQYVAPLVMLLHTTLLKTLGNHWSGTYPESISTLPADNSLLSNS : 293

HUMAN : ----- : -  
BCU0399BF : VYSELP SAE GKMKVTVTQITVALSSLKNIFTPLLFRGLLSFLTWWIAACLFSTSLFGLFY : 480  
MONKEY : VYSELP SAE GKMKVTVTQITVALSSLKNIFTPLLFRGLLSFLTWWIAACLFSTSLFGLFY : 353

HUMAN : ----- : -  
BCU0399BF : HQYLTV A : 487  
MONKEY : HQYLTV A : 360

FIG 22

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